THE SPACE BETWEEN: THE PLIGHT OF RURALLY ISOLATED, IMPOVERISHED MONTANA SCHOOL DISTRICTS

by

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DEDICATION

This work is dedicated to my children, Enola, Evander, Selah, and Soren and all children across the U.S. educated in a rural setting.

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GLOSSARY

Teacher Staffing Challenges……..A term used to describe challenges in recruiting, hiring, and/or retaining teachers (Ingersoll, 2001).

Teacher Mobility……A term used to describe teachers who leave one school to work for another (Allensworth et al., 2009).

Teacher Attrition……A term used to describe teachers who leave the profession entirely (Ingersoll, 2001).

Teacher Turnover……A term used to describe the combination of teacher mobility and teacher attrition (Ingersoll, 2001).

Rurally Isolated School District.……A school district a minimum of 25 miles away from a city of at least 50,000 people and 10 miles from a town of at least 2,500 people (as cited in Sawchuck, 2018).

Impoverished School District…...……..A school district with 40% or more students qualifying for free or reduced school meals in one or more district schools (ESEA section 1114(a)(1)).

ABSTRACT

Despite growing awareness of the teacher staffing crisis in rurally isolated, impoverished Montana school districts, little has been done to effectively address the issue. As opposed to a general lack of supply, current state and national research attribute the problem to challenges in teacher recruitment and retention. While many of these studies have identified factors associated with teacher staffing challenges, none have fully conveyed the essence of the struggle through the experiences of school leaders who endure the crisis. Therefore as revealed through the experience of eligible superintendents, the purpose of this qualitative study was to investigate teacher staffing challenges in rurally isolated, impoverished Montana school districts and the role of state school funding policy in the recruitment and retention of high quality teachers. Anchored by punctuated equilibrium social theory, the study's conceptual model provides a basis for multiple instrumental case studies. Investigative research began with two focus groups of eligible superintendents and was followed by multiple interviews with the superintendents of four representative case study school districts. Audio recordings of interviews were transcribed and reviewed using typological data analysis methods to identify semantic relationships, themes, and significant statements. Study trustworthiness was established through bracketing the researcher's personal experiences with teacher staffing challenges, thick description, peer review, member checking, and triangulation with school district related information and other state research. Findings indicate that current Montana school funding policy may exacerbate the staffing challenges experienced in these remote and poor districts as well as their organizational functioning.

CHAPTER ONE

INTRODUCTION

The research on teacher staffing challenges presents a "complex phenomenon" (Wu, 2012). Early studies of teacher turnover suggested the problem was a result of a national personnel shortage (Grissmer & Kirby, 1987, 1997; Heyns, 1988; Murnane, 1981; Murnane, Singer, & Willett, 1988); however, more contemporary research has largely refuted this theory and pointed to struggles in teacher recruitment and retention as the fundamental driver of the staffing crisis (Allensworth, Ponisciak, & Mazzeo, 2009; Ingersoll, 2001; Kersaint, Lewis, Potter, & Meisels, 2007; Marvel, Lyter, Peltola, Strizek, Morton, & Rowland 2006). To address this problem, researchers have sought to identify factors that influence teachers' decisions to stay at their current school, to move to a new school, or to leave the profession. Inspired by the seminal work of Dr. Richard Ingersoll (2001), current teacher staffing research has primarily focused on the challenge of teacher retention and the influence of organizational factors on the issue. Many of these studies have suggested that teacher compensation is associated with teacher turnover. This research has implied that teachers earning less than what other schools or similar occupations could offer are more likely to move to another school or leave the profession for other work (Feistritzer, 2011; Goldring, Taie, & Riddles, 2014; Hanushek & Rivkin, 2007; Luekens, Lyter, & Fox, 2004; Stoddard & Young, 2005). Other studies have argued that workplace conditions have had a significant impact on teachers' career moves. Such research has suggested that teachers in schools with fewer resources,

deteriorating facilities, larger class sizes, limited teacher prep time, and student behavior issues are at a greater risk to turnover than teachers without or fewer of these conditions (Allensworth et al., 2009; Goldring et al., 2014; Hirsch, 2004, 2005; Hirsch, Emerick, Church, & Fuller, 2006; Locklear, 2010). Still some works have pointed to administrative support as a key driver in teacher attrition or mobility. These studies have argued that failure of administrators to effectively address student behavior, lack of teacher autonomy in the classroom, and limited or no allowance for teacher voice in schoolwide decision making increases the possibility of schools encountering teacher staffing challenges (Allensworth et al., 2009; Boyd et al., 2010, Ingersoll, 2001; Luekens et al., 2004; Tickle, 2008).

While proven to be influential, organizational factors alone do not fully explain the depth and complexity of teacher staffing challenges. Much research has also examined the effect of teachers' individual characteristics on turnover. These studies have found that teacher characteristics such as age, gender, and experience consistently predict turnover (Guarino, Santibanez, & Daley, 2006; Ingersoll, 2001; Johnson, Berg, & Donaldson, 2005; Marvel et al., 2006). Other studies have analyzed the impact of school characteristics and student composition on teacher staffing challenges. Such research has suggested that school attributes, like urbanicity (e.g., rural, suburban, urban), and student characteristics, such as percentage of minority and socioeconomically disadvantaged students, are major contributors to teacher turnover (Allensworth et al., 2009; Elfers, Plecki, & Knapp, 2006; Hanushek, Kain, & Rivkin, 2004).

Within the field of educational leadership, teacher staffing challenges are a major concern. If pupil development is the core purpose of the education profession, an argument could be made that student outcomes are the chief responsibility of a district and the administrator who leads it. This premise would place the examination of factors that affect student development as a high priority. A review of the literature has shown that of all school related factors, teachers have the greatest influence on student performance (Darling-Hammond, 2000; Rivkin, Hanushek, & Kain, 2005; Sanders & Rivers, 1996). The issue of teacher staffing would then not only appear to be a critical factor in student development but also key to the success of schools and the effectiveness of educational leaders. In Montana, however, the space between remote and poor school districts and their more affluent suburban and urban counterparts, in terms of geographic isolation and school funding, could create an inequitable balance in the recruitment and retention of high quality teachers. To date, little research has focused on the plight of rurally isolated, impoverished school districts and their struggle to find and keep good teachers or the role of school funding policy in their staffing challenges. The present study works to bridge this critical gap in the literature.

Problem

Montana studies indicate that rurally isolated public schools, those at least 25 miles away from a city of at least 50,000 people and 10 miles from a town of at least 2,500 people, struggle to recruit and retain teachers more so than public schools in other geographic areas (RISE4MT, 2016; Stoddard & Young, 2005). RISE4MT is a joint

initiative of the Montana Association of School Business Officials, Montana Educators Association-Montana Federation of Teachers, Montana Quality Education Coalition, Montana Rural Education Association, Montana School Boards Association, School Administrators of Montana, the Phyllis J. Washington College of Education and Human Sciences and Montana State University's Department of Education that has sought to "increase the number of available educators interested in working in Montana's Public Schools while preserving our current standards of quality" (2019). Research efforts by RISE4MT have explored teacher staffing in Montana and exposed some potentially alarming trends for remote and poor school districts. Further intensifying the issue, publicly available state data has shown that many rurally isolated schools also serve a high percentage (i.e., 40% or greater as defined by ESEA section 1114(a)(1)) of socioeconomically disadvantaged students (Quinlan & Furois, 2015); a population much research has identified as "at-risk" for school failure (Koball, Dion, Gothro, Bardos, Dworsky, Lansing,…Manning, 2011; Bracey, 2006; Bradley & Corwyn, 2002; Walker, Greenwood, Hart, & Carta, 1994).

Teacher staffing challenges in these remote and impoverished Montana school districts may be particularly problematic when considering the issue's potential impact on the quality of teachers they are able to recruit and eventually hire. According to national studies and policy briefs, the greatest disparity in student access to quality teachers are found in schools' whose population consists largely of low income and/or minority students (Barnes, Crowe, & Schaefer, 2007; Ingersoll et al., 2014; Sass, Hannaway, Xu, Figlio, & Feng, 2012). Additionally, a growing body of research has found that students

of schools who struggled to adequately staff their classrooms scored lower on state standardized tests than peers of schools with more consistent staffing (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009; Goldhaber, Gross, & Player, 2011; Isenberg, Max, Gleason, Potamites, Santillano, Hock,…Angelo, 2013; Ronfeldt, Loeb, & Wyckoff, 2013). If the staffing challenges experienced in remote and poor Montana school districts provoke a disparity in teacher quality, then the students they serve, many of which have already been identified as at-risk of school failure, could experience an instructional disadvantage and render their school more vulnerable to penalty in the high-stakes environment mandated under current state and federal accountability law.

Teacher staffing challenges may also have a significant fiscal impact on school districts in terms of the cost associated with recruiting and training replacement teachers. Montana spends roughly $1.6 billion dollars to fund K-12 public education (Loranger & Fraser, 2017) and the cumulative cost to recruit and train new teachers to replace those exiting has been estimated to fall between $4 and $9 million per year (as cited in Alliance for Excellent Education, Appendix A, 2014). The national average cost of teacher turnover for a “non-urban” school district has been estimated to be $6,250 per exiting teacher or approximately $33,000 per non-urban school; figures that indicate non-urban schools incur an average turnover of roughly five teachers per year (Barnes et al., 2007). Therefore, the additional financial burden that has been found to be associated with teacher staffing challenges could place rurally isolated, impoverished Montana school districts at a disadvantage compared to those districts that do not need to devote the same

degree of funding, time, and resources necessary to address difficult teacher recruitment and retention issues.

Frequently overlooked in the research are the organizational impacts of teacher staffing challenges. Organizational factors (e.g., professional development, class size, curriculum or program planning, course scheduling, etc.) and/or school climate variables (e.g., collegiality and administrative support) can be affected by the experience, needs, and characteristics of the incoming teacher or by the inability of the school district to find a replacement (Guin, 2004; Shields, Esch, Humphrey, Young, Gaston, & Hunt, 1999). These findings suggest that the teacher staffing challenges experienced in rurally isolated, impoverished Montana school districts may strain their organizational functioning in a manner that districts with fewer teacher recruitment and retention problems do not incur.

Finally, teacher compensation in Montana varies by school district with the highest wages often found in larger, suburban or urban school districts and the lowest in smaller, rurally isolated, and often impoverished districts (RISE4MT, 2016; Stoddard & Young, 2005). In fact, the Missoulian Newspaper recently exposed a gap in beginning teacher wage between some Montana districts as large as $10,000 (Davis, 2017). Providing further evidence of the disparity in teacher wage, the most recent data from the National Center for Education Statistics has revealed that Montana was ranked last among all states in beginning teacher salary (Hoffman, 2016). State studies have suggested that gaps in teacher compensation among Montana school districts may be placing remote and poor districts at a competitive disadvantage in the recruitment and retention of high quality educators (RISE4MT, 2016; Stoddard & Young, 2005). If

current school funding policy enables teacher wage disparity and in turn exacerbates staffing, fiscal capacity, and organizational challenges in rurally isolated, impoverished school districts, then some of Montana's most vulnerable students could be receiving a more diminished education than their peers and the state, once again, could be in jeopardy of liability.

Purpose

As revealed through the experience of eligible superintendents, the purpose of this qualitative case study was to investigate teacher staffing challenges in rurally isolated, impoverished Montana school districts and the role of state school funding policy in the recruitment and retention of high quality teachers. As described by Ingersoll (2001), teacher staffing challenges consist of struggles in recruiting, hiring, and/or retaining high quality teachers.

Research Questions

In order to further explore teacher staffing challenges in rurally isolated, impoverished Montana school districts and provide a qualitative juxtaposition to the quantitative RISE4MT (2016) data, this study investigated the general experience of staffing challenges is some remote and poor districts and the impact of school funding policy on their teacher recruitment and retention efforts. To guide research, the following questions were posed:

- How do superintendents from rurally isolated, impoverished Montana School Districts describe their experiences with teacher staffing challenges?

- How do superintendents from rurally isolated, impoverished Montana School Districts describe their experience of the impact of Montana school funding policy on teacher staffing?

- How do superintendents' from rurally isolated, impoverished Montana School Districts descriptions of their experiences with both teacher staffing challenges and school funding policy align with the RISE4MT (2016) data trends?

Delimitations

The superintendents of districts encompassing both elementary and high schools were intentionally selected for this study because their oversight of many schools allows them to provide a broader perspective of teacher staffing challenges across the K-12 grade level spectrum. Although they were allowed to participate in focus groups to help drive and enhance discussion, data from superintendents of otherwise qualified elementary only districts was excluded since they could not also provide a perspective of staffing challenges at the high school level. The researcher also intentionally excluded qualifying Native American reservation school districts under the assumption that these districts may face challenges unique to Native American reservation schools and thus deserving of separate study. Feedback from two focus groups, one from eastern Montana and one from western Montana, of eligible superintendents helped narrow the search for representative case studies by identifying common experiences with staffing challenges and how it related to student outcomes and school funding within their school district. The eventual case studies were confined to four eligible school districts, two from each focus group, and the superintendent representing each.

Limitations

The eligibility criterion established for this study limits generalizability by purposefully excluding some school districts who may have otherwise qualified. According to Eisner (1998); however, findings beyond the scope of this study are permissible if responsibly applied to other contexts (pp. 201-205). As with any case study, the method's bounded nature somewhat limits transferability.

Significance

Absent in the U.S. Constitution, our country's founders seemed to intend that the responsibility of education be placed on the states. Many states include language within their constitution to provide for the establishment and funding of public education; however, some of these states, like Montana, have faced litigation in the past for not meeting the mandate which stresses adequacy and equitability. Therefore, the study of teacher staffing challenges in Montana is necessary in order to ensure all students within the state receive both "equality of educational opportunity" and an education funded in an "equitable manner" (M.T. Const. art. X, § 1).

As encouraged by Levy, Joy, Ellis, Jablonski, and Karelitz (2012), qualitative interview data is needed to, "capture the costs of turnover at the district and school levels that do not show up in budget sheets or timesheets" (p. 107). By conducting focus groups of eligible superintendents and further scrutinizing representative case studies, a better understanding of teacher staffing challenges in rurally isolated, impoverished Montana school districts may be formed and provide new insight into the struggles precipitated by

the problem. Findings from this research may compel refinement or revision of previously held assumptions regarding teacher staffing problems within the state. With this information, Montana school district administrators may uncover some shared experiences that could lead to the formation of alliances and the exchange of ideas to address mutual concerns in teacher staffing. Such cooperative efforts might not only lead to improved personnel decisions but also to the crafting of solutions for school districts across the state that share the same or similar staffing challenges. The lived stories of several superintendents who have experienced the staffing challenges in these remote and poor districts might also provide a voice to enhance and deepen the RISE4MT (2016) findings as well as offer guidance for future research efforts. For Montana lawmakers, research delving into teacher recruitment and retention within rurally isolated school districts may not only provide information needed to access the equity and effectiveness of legislation addressing teacher staffing challenges but may also serve as an impetus for a broader reexamination of the equity in state school funding policy.

CHAPTER TWO

REVIEW OF LITERATURE

The following literature review covers pertinent research on the primary sources of teacher staffing challenges and its impact on teacher quality, student outcomes, school finance, and school organizational capacity. Punctuated equilibrium social theory anchors the conceptual framework, which is offered to explain the unique conditions perpetuating teacher staffing challenges in rurally isolated, impoverished Montana school districts. The research on rural school districts as well as educational leaders experience with staffing challenges, albeit limited, is presented to provide further context for this work. Montana studies are annotated to provide quantitative evidence and to convey the local impact of teacher staffing challenges in rurally isolated, impoverished school districts.

Framework

The theoretical framework proposed for this research is based on Baumgartner and Jones (1993) punctuated equilibrium social theory (PEST), which serves as the foundation of the study's conceptual model of conditions perpetuating teacher staffing challenges in rurally isolated, impoverished Montana school districts. The conceptual framework used to justify and guide understanding of the model relies on Baker's (2015, 2016a) explanation of how and why money matters in education as well as Alexander, Salmon, and Alexander's (2015) description of stability politics in school funding policy.

Table 1 illustrates the distinction between the study's theoretical and conceptual framework.

Table 1. Distinction between Theoretical and Conceptual Framework

Theoretical Framework	*Conceptual Framework*
Theory: Punctuated equilibrium social theory	Model of Conditions Perpetuating Teacher Staffing Challenges in Rurally Isolated, Impoverished Montana School Districts (adapted from Baker, 2015, 2016a) Stability Politics in School Funding Policy
Theorists: Baumgartner & Jones (1993)	Model Core Concepts: state and local revenue drives school spending and largely determines teacher compensation, teacher quality, school organizational capacity, and student outcomes Stability Politics in School Funding Policy Core Concepts: maintenance of the status quo, favored by the affluent who attempt to defend their local fiscal advantage of greater income and property wealth by confronting efforts to equalize school funding with intense political opposition Key Theoretical Principles: public policy remains static due to institutional cultures, vested interests, and bound rationality of decision makers; policy only changes when party control of government and/or public opinion dramatically shifts

Redefining Punctuated Equilibrium as a social theory, Baumgartner and Jones (1993) proposed that policy change in America is the product of the ebb and flow of high interest issues. As issues gain public interest, the potential for a shift in contemporary opinion increases. When such a shift occurs, the stability of existing policy is threatened. Baumgartner and Jones (1993) argued that many important political and economic policy

areas have been dominated by “privileged groups of elites;” a structural arrangement the authors referred to as a “policy monopoly” (pp. 3-4). These policy monopolies remain stable for long periods of time until new ideas emerge from those representing the disadvantaged. When these “policy entrepreneurs” of the underprivileged gain momentum and support for their ideas and proposals, they can defeat existing policy monopolies, restructure political arrangements, and achieve dramatic policy change. Baumgartner and Jones (1993) punctuated equilibrium social theory thus explains the historical process of prolonged policy stability punctuated by brief, albeit intense periods of volatility.

School funding is a state controlled economic policy with the potential of monopolization by the affluent. To explain how and why money matters in schools, Baker (2015) has suggested that the fiscal capacity of states affects their ability to fund public education. With federal aid only accounting for a small portion of school funding, he explained that state and local revenue drives school spending and largely determines teacher staffing, compensation, and class size (Baker, 2015). In essence, he argued that how much money a school district can raise through state and local taxes dictates the number of teachers a school can employ (i.e., pupil to teacher ratio or PTR), the compensation the school can pay them, and the quality of teacher a school can recruit and retain (Baker, 2015). See figure 1.

Figure 1. Conceptual model of the relationship of schooling resources to children's measurable school achievement outcomes (Baker, 2015).

The present study's conceptual model is adapted from Baker's (2015) model above and includes an approximate percentage breakdown of Montana school funding (Mickelson, 2016). However, where Baker proposed that the combination of state and local tax policy plays an equal role in educational funding, the conceptual model of this study separates them and suggests that stability politics in state school funding policy could upset the balance between the two revenue sources and create an inequitable share in local funding responsibility. In addition, the tradeoff between class size and wages was excluded due to the already low pupil to teacher ratio typical of small rural Montana school districts.

In current Montana school funding policy, the school general fund budget is the main focus of funding as it is used to pay for the salary and benefits of school personnel, instructional materials, facility maintenance, and other operational expenses not covered by special earmarked funds (Mickelson, 2016). The general fund budget is primarily

subsidized by state entitlements based on student enrollment, number of licensed staff, and number of enrolled American Indian students (Mickelson, 2016). This type of funding formula has potential to be problematic due to the variability of the factors used to calculate the entitlements which appears to favor larger, property rich suburban and urban school districts who maintain steady or growing student enrollment and staff size. While some may argue that Montana's Guaranteed Tax Base (GTB) aid equalizes property generated wealth across the state, Mickelson (2016) admits that the state does not have a true GTB system but a guaranteed tax yield system that provides only a minimum amount of funding per taxable mill for each student rather than an equal amount per student. Unfortunately, rurally isolated school districts often experience declining enrollment which causes them to lose budget authority and forces them to turn to local tax payers to compensate for the lost revenue. Many rurally isolated school districts also serve impoverished communities, as indicated by the percentage of students qualifying for free or reduced school meals (Quinlan & Furois, 2015).

To define the role of states in providing for poor students, Baker (2016b) offered the following assessment:

> …to achieve common outcome goals, districts serving higher poverty student populations require additional resources. That is, equal opportunity to achieve common outcomes necessitates a progressive distribution of resources…All else equal, states providing fewer resources to similar children might be expected to achieve lower outcomes, which may in fact reflect the state's preferences with respect to outcomes. It may also reflect the state's capacity or willingness to support tax policy necessary for achieving those outcomes. In an era of wider adoption of common standards and related assessments, cross-state differences in resource levels available to local public school districts, all else equal, may indicate unequal opportunities to succeed on those outcome measures. (p. 663)

Whether funding for low-income students is progressive, more money allocated to poor than non-poor students, depends on the interaction of local, state, and federal funding (Chingos & Blagg, 2017). According to Chingos and Blagg (2017), federal funding is designed to act as a supplement to state funding which serves as "the primary mechanism for targeting districts [with] disadvantaged students." Funding at the local level is often regressive, more money going to non-poor students, because it tends to mirror school district demographics. In essence, high poverty districts are often unable to collect as much money in property taxes because the families paying those taxes have less property wealth compared to families in non-poor districts (Chingos & Blagg, 2017). Although, as Chingos and Blagg (2017) suggested, it is the function of state funding to correct for inequitable local spending, the combination of state and local funding for low-income students is regressive in nearly half the states of the country. Montana ranks third from the bottom with a funding gap of $379 per student between the non-poor and their low-income counterparts (Chingos & Blagg, 2017). It is not until the addition of federal funding, largely through Title I and USDA child nutrition programs for low-income families, does spending on poor students become progressive in Montana; however, Johnson, Mitchel, & Rotherham (2014) have argued that even the Title funding program is unfair to rural schools serving disadvantaged students. The equity of Federal funding aside, $285 of progressive spending on low-income Montana students pales in comparison to states like South Dakota, Ohio, New Jersey, and Alaska who spend upwards of $1,000 more per student on the poor (Chingos & Blagg, 2017). The progressive formulas of two of these states, Ohio and New Jersey, can be attributed to

court orders mandating the creation of a more progressive funding system (Chingos & Blagg, 2017).

Baker's (2016b) research of school finance and the distribution of equal educational opportunity concur with the findings of Chingos and Blagg (2017). In Baker's (2016b) examination of state school funding, Montana ranked third among states with the greatest reductions to educational spending progressiveness over the final five year period covered in his study (2007-12). During that time, funding targeted to high poverty Montana school districts declined by 36%; a level of spending equal to that of 1993. Montana was also ranked third among states in decline of teacher wage competitiveness when compared to non-teacher wages, at same age and degree level. Over the 12 year span covered in the study (2000-12), Montana teacher wage competitiveness declined by 23% resulting in earnings equal to 87% of non-teacher wages. Figure 2 shows the most recent Montana funding distribution breakdown as reported by Rutgers University Education Law Center. It illustrates the funding gap between high and low poverty school districts in Montana which could contribute to low teacher wages, teacher staffing challenges, diminished teacher quality, weakened organizational capacity, and reduced student outcomes in rurally isolated, impoverished school districts.

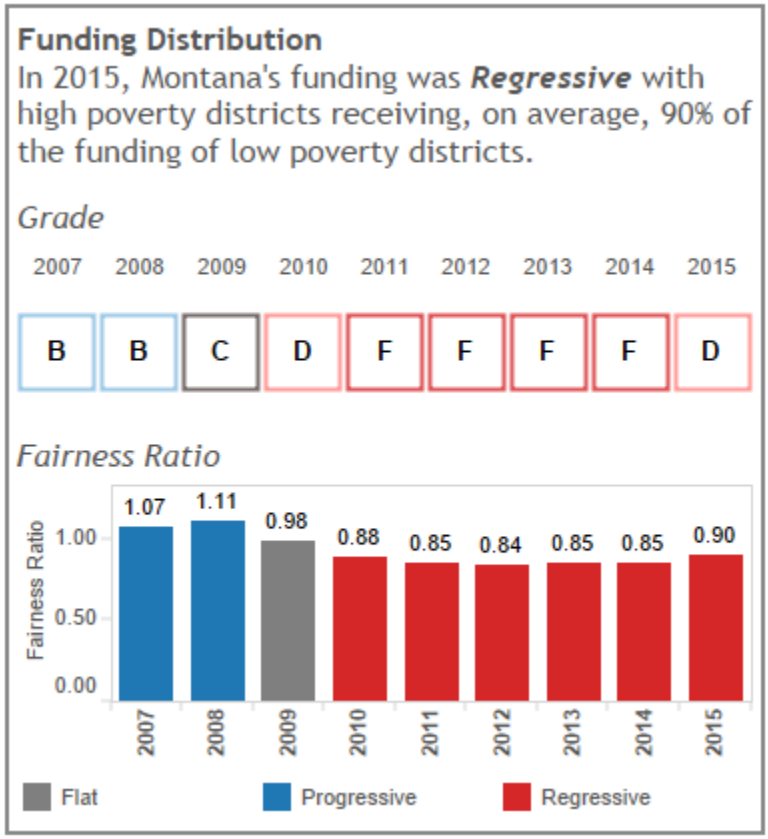

Figure 2. Montana school funding distribution and fairness ratio (Baker et al., 2018).

The increased financial burden of school funding on impoverished, rural Montana communities can strain the limited resources of local tax payers and make passing operational levies a challenging proposition. When local operational levies fail, school districts must make budget cuts and teacher wages often remain stagnant. As Chambers (1977) and Ferguson (1991) argue, "If areas differ by *prices or amenities* [emphasis added] or if labor markets are *geographically confined* [emphasis added], [teacher] salaries must be considered in comparison to the relevant group of competing districts" (as cited in Hanushek et al., 2004, p. 331). If wages are not competitive, general teacher

quality within the school could decline. A revolving door of inexperienced teachers, brought on by lack of wage competitiveness and geographic isolation, may also limit school organizational capacity by weakening the staff's ability to collaborate on future school plans and maintain/build a cohesive school program. The combination of a repetitive churn of inexperienced teachers and an inability to enhance school organizational capacity may reduce outcomes for student populations already deemed vulnerable by their low socioeconomic condition. It is with these data in mind that PEST and stability politics in school funding policy was selected as the basis of the framework for this study. Other factors derived from the research literature include state wealth and income, state revenue, federal funding, county funding, local wealth and income, local revenue, school funding disparities, rurally isolated public schools, low teacher wages, staffing challenges, diminished staff quality, weakened organizational capacity, and suppressed student outcomes (Baker, 2015, 2016a, 2016b; RISE4Montana, 2016; Stoddard & Young, 2005). The impact of Montana school funding policy on teacher compensation, staff quality, school organizational capacity, and student outcomes may necessitate more attention to the influence of state level stability politics and its potential effect on teacher staffing challenges in rurally isolated public school districts. See figure 3.

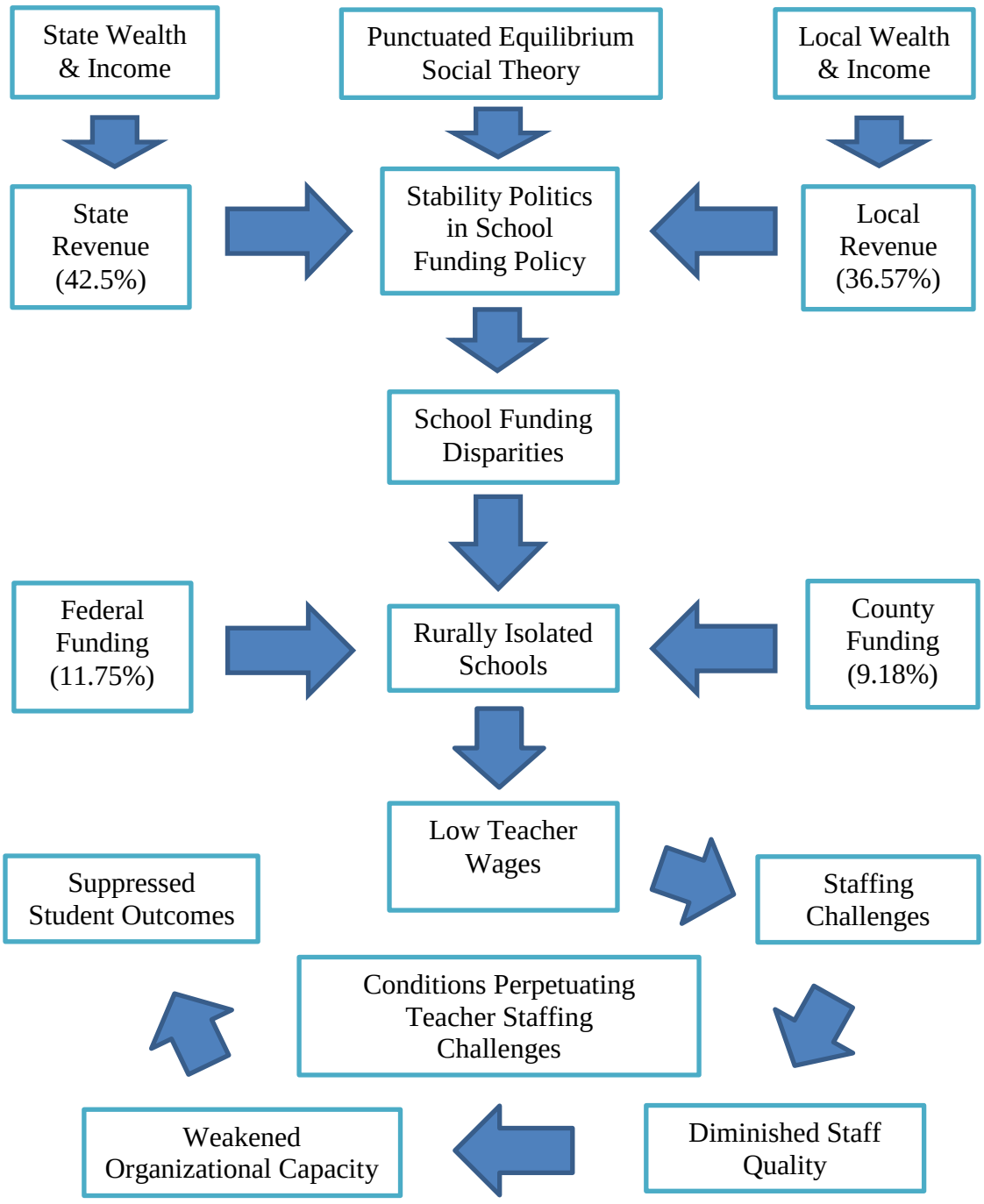

Figure 3. Conceptual model of conditions perpetuating teacher staffing challenges in rurally isolated, impoverished Montana school districts (influenced by Alexander, Salmon, & Alexander, 2015; Baker, 2015; Mickelson, 2016).

Sources of Teacher Staffing Challenges

A Nation at Risk (1983) drew the country's attention with projections of crisis level teacher shortages triggered by rising student enrollment and the first wave of retiring baby-boomer teachers. The report inspired several studies whose findings supported looming challenges in teacher staffing (Grissmer & Kirby, 1987, 1997; Heyns, 1988; Murnane, 1981; Murnane et al., 1988). As the cause of the problem appeared to be an issue of supply, researchers recommended increasing teacher salary, decreasing the barriers to teacher preparation programs and licensure, and intensifying recruitment efforts of college graduates and young professionals to the field of education.

Dr. Richard Ingersoll was one of the first to challenge the teacher shortage theory. Applying descriptive analysis to data from the National Center for Education Statistics (NCES) 1991-92 cycle of the Schools and Staffing Survey (SASS) and its companion, the Teacher Follow-up Survey (TFS), Ingersoll found large numbers of teachers leaving the profession for "reasons other than retirement" (2001, p. 500). In an effort to determine the cause of this exodus, Ingersoll applied multiple regression analysis to examine the effects of teacher characteristics, school characteristics, and organizational conditions on teacher turnover. Test results of teacher characteristics indicated that both teachers younger than 30 and those 50 or older were more prone to turnover than their middle-aged peers. Analysis of school characteristics suggested that teachers from small schools had a higher rate of turnover than teachers from large schools. In addition, teachers in rural schools were found to be less likely to turnover than those in urban schools. Results regarding the effect of organizational conditions on teacher staffing

showed that schools with better administrative support, fewer student discipline issues, greater teacher influence on decision making, and more teacher autonomy had lower rates of turnover.

More recent studies have confirmed and expounded upon Ingersoll's (2001) work and suggested that causes of widespread challenges in teacher retention may stem more from environmental factors, such as poor working conditions and lack of administrative support, than previously believed (Allensworth et al., 2009; Berry, Daughtrey, & Wider, 2010, 2011; Ingersoll, Merrill, & Stucky, 2014; Johnson et al., 2005; Kersaint et al., 2007).

Compensation

Teacher turnover due to inadequate compensation is based on the assumption that teachers will leave or consider leaving their place of employment for a position that offers considerably better wages and benefits. It is assumed that as the gap between a teacher's current compensation and what he or she could command elsewhere increases, so too will the probability of teacher turnover. While the literature suggests that teacher compensation is one of many factors that impact their career decisions, salary and benefits are unique from other factors, such as administrative support or working conditions, in that fiscal constraints render school districts limited ability to improve compensation. Studies analyzing SASS and TFS data have consistently identified salary as a factor affecting teacher recruitment and/or retention (Goldring et al., 2014; Gray & Taie, 2015; Ingersoll et al., 2014; Keigher & Cross, 2010). In a recent longitudinal study using SASS and TFS data, Ingersoll et al. (2014) found salary to be one of several factors

consistently contributing to an attrition rate of 45% of teachers (1987-2012) within their first five years on the job. Further descriptive analysis of this data by Goldring et al. (2014) revealed that teachers whose base salary was less than $39,999 per year either left their place of employment for another school (27.3%) or quit the profession (21.2%) at a much higher rate than teachers making more than $39,999 per year (14.3% and 15.6% respectively).

While many studies use the SASS and TFS data sets for analysis of the teacher workforce, they are not the only nationally representative studies available. Feistritzer (2011) utilized her own independently designed survey to examine five cycles (1986-2011) of nationally representative teacher data. Using the Market Data Retrieval's 2011 catalogue of U.S. teachers, 2,500 individuals were randomly selected to participate in the study of which 1,076 agreed. A 33 item mail and online survey/questionnaire was used to collect data from the teacher sample. Findings from descriptive analysis indicated that while 2011 wage satisfaction increased among teachers surveyed compared to those surveyed in prior research cycles, salary was the aspect in which teachers were least content with only 55% of those surveyed claiming to be very or somewhat satisfied with their current earnings.

State studies have also been critical to the research on salary's influence of teacher's career decisions. In a two-part Washington state study, Elfers et al. (2006) examined the issues of teacher mobility and retention. In part-one, state longitudinal databases were used to analyze all individual teacher records for twenty diverse school districts; a sample of 14,286 teachers representing nearly 30% of the state's teacher

workforce. In part-two, the researchers surveyed a representative sample of state teachers on their perception of factors that influence whether they stay or leave their school or school district. Findings related to teacher wages exposed regional differences within the state as more teachers in western Washington (22%) considered salary to be a moderate or strong reason to leave for another school than teachers in eastern Washington (9%); however, there were no other significant findings with respect to teacher salary. The researchers suggested that the state's equalized teacher compensation system may partially explain the limited role salary appeared to play in teachers' career decisions and why there was little mobility between districts within the state.

In a Texas state study, Hanushek et al. (2004) analyzed three years of longitudinal data (1993-96) on a total of 376,078 teachers from the Texas Database to determine why the state's public schools lose teachers. Using multinomial logistic regression and compensating differentials to control for other determinants of teacher labor supply, the researchers found that higher salaries reduced the probability of teacher turnover but the effect diminished as teachers gained experience. They concluded that, "the consistently negative coefficients for teachers with less than thirty years of experience in combination with a similar and much more significant set of findings in the non-fixed effect specifications support the belief that higher salaries reduce exits" (p. 17). The researchers went on to recommend that an increase in salary is needed to offset the labor market disadvantages of certain schools but suggested that across the board salary increases was not the answer. In a later study that identified salary as a factor continuing to influence teacher turnover in Texas, Hanushek recanted the suggestion of raising

teacher wages for schools struggling with staffing challenges and argued that such a policy would be too expensive and ineffective (Hanushek & Rivkin, 2007). Instead, the researchers recommend that a teacher compensation formula based on performance would be a more effective method to reduce teacher turnover while maintaining teacher quality. However, more recent research on the effectiveness of teacher performance based compensation has been mixed at best (Chiang, Speroni, Herrmann, Hallgren, Burkander, & Wellington, 2017; Gratz, 2009; Springer et al., 2010).

As applied through the study's conceptual model, punctuated equilibrium social theory aligns to the majority of the literature pertaining to the effect of compensation on teacher staffing. In each case, the Goldring et al. (2014) finding concerning the higher attrition rate of teachers making less than $39,999, the Elfers et al. (2006) finding regarding regional differences in teachers' perception of the importance of salary, and the Hanushek et al. (2004) finding pertaining to the high probability of reduced teacher turnover through increased teacher salary may be partially explained by the differences among state school funding policies suggested by Baker (2015, 2016a) and the influence of stability politics as described by Alexander et al. (2015). Applying punctuated equilibrium social theory, the study's model suggests that policy entrepreneurs representing school districts located in more densely populated, affluent areas maintain control of favorable school funding policy and fiercely oppose any measure that threatens their local fiscal advantage. In this case, school districts in poverty stricken rural areas would have less funding for operational costs, including teacher wages, than school districts within wealthy suburban or urban areas. This notion aligns to the assumption for

teacher turnover due to inadequate wages, which proposes that teachers will leave or consider leaving their place of employment for a position that offers considerably better compensation. If school funding policy contributes to disparity in teacher compensation between affluent and poor districts, then application of punctuated equilibrium social theory through the study's conceptual model may partially explain teacher staffing challenges that result from insufficient compensation.

Workplace Conditions

As explained by Locklear (2010), teacher workplace conditions may include such items as required teacher workload, supplies and resources for instruction, mandatory paperwork, class size, school climate, and student behavior. Teacher turnover due to workplace conditions is based on the assumption that teacher morale decreases when items such as workload, paperwork, class size, and concerns for student behavior increase, when supplies and resources for instruction decrease, and/or when facilities fall into a state of disrepair. It is assumed that as teacher morale wanes, the overall satisfaction derived from their work suffers and may lead to consideration of moving to another school or even leaving the profession for other employment.

Drawing from the nationally representative 2012-13 SASS and TFS data, Goldring et al. (2014) used bivariate analysis to determine empirical relationships between teacher career decisions and school, individual, and organizational characteristics. To ensure differences were not the result of sampling variation, comparisons were validated using t-tests with a significance level of .05. Results related to workplace conditions indicated that 53% of teachers who left the profession in 2012-

13 felt their new working conditions were better than what they experienced when teaching and 58% claimed that their influence over workplace policies and practices was also better in their new position. The authors only presented select findings and did not make recommendations for future reform or research.

In addition to nationally representative studies, state research has also pointed to working conditions as a factor contributing to teacher staffing challenges. In a California study, Loeb, Darling-Hammond, and Luczak (2005) used state representative teacher survey data on a random sample of 1,071 teachers to explore teacher, student, and organizational factors related to teacher turnover. The data consisted of perceptions of working conditions from telephone interviews with participants, student demographic information from California education databases, and teacher salary figures from district salary scales. A factor analysis was conducted using interview data to evaluate specific workplace conditions. Logistic regression was used to develop models for teacher turnover and hiring difficulty and Ordinary Least Squares (OLS) regression was used to develop a model for the proportion of beginning teachers in the school. Results indicate that large schools, schools with lower teacher salaries, schools with lower teacher workplace condition ratings, and schools with larger class sizes are more likely to report turnover problems. However, the strongest predictor of turnover, hiring difficulty, and percentage of first year teachers on staff was teachers' rating of workplace conditions which mitigated most of the variance attributed to student demographics. To address teacher turnover in California, the researchers recommended that policy makers and school leaders consider measures to improve teacher salaries and working conditions in

the schools that experience the worst staffing challenges.

The Center for Teaching Quality (CTQ) has been a major player in the research of teacher working conditions with as many as seven cycles of study (2002-2015) in states including: Arizona, Kansas, Mississippi, Nevada, North Carolina, Ohio, and South Carolina. Working for CTQ, Hirsch (2004, 2005) and Hirsch et al. (2006) broke down teacher working conditions into several sub categories. Although the tool for data collection, originally developed by the North Carolina Professional Teaching Standards Commission, was redesigned each cycle to meet individual state's needs, a 39 item census was the initial instrument used to collect data from teachers. The standard for inclusion in the North Carolina study required a 40% minimum response rate from each school. Since 2006, the state successfully achieved a return rate of at least 65% of all North Carolina teachers with 85% of the state's schools meeting the minimum 40% participation requirement. Descriptive statistical analysis of the data from the 2005-06 research cycle for Arizona, Kansas, Nevada, North Carolina, and Ohio indicated that the workplace conditions of time (including issues stemming from class size, availability of non-instructional time, assigned extra non-essential duties, general interruptions to work, and required paperwork) and empowerment (including supportive school environment, inclusion in decision making, and instructional autonomy) were second only to school leadership (including shielding teachers from interruptions, consistent support for teachers, and shared vision) as aspects teachers believed most important to continue working in their school (Hirsch et al., 2006). To improve teacher staffing in these states, the researchers suggested enhancing School Improvement Teams (SIT) through audit of

the SIT process and by providing structured guidance and technical assistance to schools as they work to develop their SIT. They further recommend targeted funding to provide for principal, lead teacher, and community professional development on collaborative practices that work toward quality working conditions.

While application of punctuated equilibrium social theory through the study's model does not directly align with the literature relating to the effect of workplace conditions on teacher staffing, it does align indirectly if considered from a domino effect perspective. For example, school funding policy driven by stability politics favoring wealthy school districts could potentially result in unequal funding for the operational costs of poor districts, which include funding for facility maintenance and instructional resources. This notion aligns to the assumption for teacher turnover due to workplace conditions which proposes that teacher morale wanes when supplies and resources for instruction decrease and/or when facilities fall into a state of disrepair. If school funding policy contributes to insufficient instructional resources and poor facilities in underprivileged school districts, then application of punctuated equilibrium social theory through the study's conceptual model may partially explain teacher staffing challenges that result from insufficient working conditions.

Administrative Support

According to Locklear (2010), teachers who claim they lack administrative support perceive their school climate as highly bureaucratic. In this case, teacher turnover is based on the assumption that teacher morale decreases when they feel their administrators limit autonomy of curriculum and instruction and/or provide little

opportunity to collectively participate in the decision making process. It is assumed that as dissatisfaction with administrative support increases, so too might the probability of teacher mobility or attrition.

Much of the literature points to administrative support as a major contributor to teacher staffing challenges. For example, Goldring et al. (2014) found that 45% of the teachers who left the profession in 2012-13 felt that recognition and support from their administrators/managers was better in their new position. Concurring with these findings, a survey of teacher working conditions in North Carolina issued by New Teacher Center (2014) found that 30% of teachers felt school leadership was the most important aspect influencing their willingness to keep teaching at their current school. Results from Luekens et al. (2004) also suggested that greater percentages of public and private school teachers (38% and 41%) attributed their mobility at the conclusion of the 1999-2000 school year to dissatisfaction with administrative support.

A study by Boyd et al. (2010) supports the findings of pervious research concerning the influence of administrative support on teacher staffing challenges. Using data from 2005, Boyd et al. (2010) surveyed all New York City (NYC) first year teachers achieving a 70% response rate (4,360 teacher participants). The 300 item survey was designed using the SASS, the study's review of literature, and the researchers' prior experience. It measured six contextual factors including: teacher influence, administration, staff relations, students, facilities, and safety. Two follow-up surveys were administered; one to participants who completed the initial survey and remained in teaching for a second year (72% response rate) and one to all NYC teachers who left the

profession in the year following the initial survey (61% response rate). The first follow-up survey solicited feedback about individuals' teaching experience, their views of said experience, and their future plans while the latter inquired about individuals' reasons for leaving the profession. The researchers used multinomial logistic regression to estimate the relationship between teacher and school characteristics and teacher retention decisions. Findings indicated that over 40% of teachers, both current and former, believed administrative support was the most important factor influencing their decision to either consider leaving (current teachers) or to quit working (former teachers) for their school. In addition, nearly 20% of former teachers reported that administration did not include them in decisions regarding curriculum or instruction, while 30% claimed that professional development was not encouraged by their building principals. To reduce teacher turnover, the researchers suggested the creation of polices to improve school administration and incentives to attract and retain the best school leaders in the schools that experience the worst staffing challenges.

Concurring with Boyd et al. (2010), Allensworth et al. (2009) used data collected in the Chicago Public School District from 2002-07 on 24,848 teachers in 538 elementary schools and observations of 9,882 teachers in 118 high schools to examine the probability of teachers remaining in their school in relation to teacher background, school, student, and workplace characteristics. While Descriptive statistics of teacher background did not reveal significant differences by gender, analysis did indicate that young and inexperienced teachers had stability rates 15-20% lower than their older peers. Findings for school characteristics suggested that smaller district schools had higher mobility rates

than larger district schools, and that some teachers left district schools due to declining enrollment. Results for student characteristics indicated that teacher mobility rates were highest in very low-performing, predominantly low-income African American schools. Findings from three-level hierarchical logistic regression models showed that inclusive principal leadership remained a strong, significant predictor of teacher stability. The researchers suggested that focus on creating a safe and non-disruptive school environment and improving collaboration among parents, teachers, and administrators could help reduce teacher turnover.

Yet again, application of punctuated equilibrium social theory through the study's model does not directly align with the literature relating to the effect of administrative support on teacher staffing; however, it does align indirectly if considered from a domino effect perspective. As previously mentioned, school funding policies favoring the wealthy could potentially result in unequal funding for the operational costs of poor districts which includes school staffing. Such funding disparities could necessitate cutting or combining essential positions including those held by school administrators. While this notion is not included in the literature as an assumption for teacher turnover due to inadequate administrative support, it has been documented that cutting essential staff positions and shifting responsibilities to administrators could strain school leaders' ability to effectively support their teachers (Parson, Hunter, & Kallio 2016). In fact, some rural principals have even been assigned sole responsibility for multiple schools within a district (Preston, Jakubiec, & Kooymans 2013). Additionally, when schools experience high teacher turnover, as found by Shields, Esch, Humphrey, Young, Gaston,

and Hunt (1999), professional development tends to lopsidedly favor the training of new teachers at the expense of the developmental needs of experienced teachers. If school funding policy contributes to staff reductions in poor districts that shift additional burdens to school administrators and/or reoccurring turnover that compel professional development that focuses primarily on new teachers, then application of punctuated equilibrium social theory through the study's conceptual model may partially explain teacher staffing challenges that result from inadequate administrative support.

Impact of Teacher Staffing Challenges

Beyond the constant battle of recruiting new teachers to replace those exiting, what impact might teacher staffing challenges have on school districts? A growing body of research suggests that teacher quality suffers in schools that struggle with staffing (Boyd et al., 2009; Goldhaber et al., 2011; Isenberg et al., 2013; Ronfeldt et al., 2013). These studies coincide with research on student academic performance, which show student test scores increasing as teachers gain experience (Hanushek, Kain, O'Brien, & Rivkin, 2005; Henry, Fortner & Bastian, 2012; Sass et al., 2012). Speaking on behalf of low-preforming and high-poverty schools, Barnes et al. (2007) argued:

> Many of these schools struggle to close the student achievement gap because they never close the teaching quality gap – they are constantly rebuilding their staff. An inordinate amount of their capital – both human and financial – is consumed by the constant process of hiring and replacing beginning teachers who leave before they have mastered the ability to create a successful learning culture for their students. As a result…, high-need urban and rural schools are frequently staffed with inequitable concentrations of under-prepared, inexperienced teachers…
> (p. 2)

As Barnes et al. (2007) suggested, student outcomes often stagnate in districts where frequent turnover continually exposes their students to inexperienced and less effective teachers. Many studies have also revealed a financial cost previously unassociated with teacher turnover (Barnes et al., 2007; Ingersoll and Perda, in press; Shockley, Guglielmino, & Watlington, 2006). These expenses may include such items as recruitment marketing, administrative processing, induction and mentor programs, and professional development which may be necessary to recruit, train, and groom new teachers (Carroll, 2007). Such expenses could equate to tens, even hundreds of thousands of dollars for school districts and millions of dollars for states (Alliance for Excellent Education, 2014).

Although relatively scant in the literature, school organizational capacity has been gaining interest as an area possibly impacted by teacher staffing challenges. According to Newmann, King, and Youngs (2000), a school's organizational capacity is composed of five dimensions: 1) the individual teacher's capacity for instruction, 2) the faculty's capacity for collaboration toward instructional improvements, 3) the collective capacity of administration and faculty to establish and maintain program coherence, 4) the school's capacity to acquire high quality resources and maintain/upgrade facilities, and 5) the principal's capacity for effective school leadership. Sharrat and Fullan (2009) argued that the purpose of building school organizational capacity is to improve teaching and learning through continuous, purposeful, and deliberate collaboration with all stakeholders. If a breakdown occurs in any of Newmann et al. (2000) five dimensions of school organizational capacity and disrupts the collaborative process described by Sharrat

and Fullan (2009), a school's capacity to improve teaching and learning will be limited (see Guin, 2004 and Shields et. al, 1999).

Staff Quality and Student Outcomes

The literature on teacher staffing challenges has branched in recent years to include research of its potential impact on teacher quality and student outcomes. A study by Ronfeldt et al. (2013) contributed to this discussion by exploring the impact of teacher turnover on student achievement. Eight academic years of data (2001-02 and 2005-10) were collected from both the New York City Department of Education and New York State Education Department and included student test scores in Math and English Language Arts (ELA) as well as 850,000 observations of fourth- and fifth-grade students across all New York City elementary schools. The researchers used a unique school-by-grade-by-year teacher turnover identification strategy and two classes of fixed-effect models to leverage variation in turnover across years within the same grade level and school. Extensive controls where added to mitigate the possible influence of other factors. Assuming that the effects of turnover in the same school and grade level were comparable across years, the researchers found that test scores of students in grade levels that experience 100% turnover decreased by 7.4% to 9.6% of a standard deviation in Math and 6.0% to 8.3% of a standard deviation in ELA compared to years when there was no turnover. To avoid decreasing test scores due to teacher turnover, the researchers suggested polices that keep grade-level teams together and incentive structures to dissuade teachers from leaving.

In a similar study, Isenberg et al., (2013) investigated access to effective teachers for disadvantaged students. One of their concerns was whether access to effective teaching was related to the hiring, retention, or mobility of teachers both within and across districts. The study sample included 29 school districts representing 16 states and 4 U.S. Census regions with a median enrollment of 60,000 students. Data collected from each district was limited to grades 4-8 and included student characteristic, school enrollment, and teacher course linking information as well as four years of student test scores from state assessments from 2007 through 2011. To measure between-school access to effective teaching, the researchers first applied the data to create teacher value-added models to estimate teacher contribution to student achievement. Next, they assigned the average value added by teachers within each school in every sample district, which represented the effectiveness of instruction received by students from teachers in their school. Using students' free or reduced price meal status as the measure for disadvantage, the researchers then calculated the mean value-added estimate among both privileged and underprivileged schools. Finally, they calculated the difference in access to effective teaching between schools by subtracting the mean value-added estimate for disadvantaged schools from the mean value-added estimate for advantaged schools. Findings revealed that underprivileged students had less access to effective teachers in all 29 sample districts. The gap in effective teacher access for disadvantaged students between schools was equivalent to 0.027 standard deviations of student test scores in ELA and 0.016 standard deviations in math. In regard to this finding, the researchers suggested that access to effective teachers seemed to depend more on the percentage of

underprivileged students in a school than teacher assignment to disadvantage students within a school. They argued that providing equal access to effective teachers could decrease the achievement gap for disadvantaged students by two percentile points in both ELA and math. The authors did not provide policy recommendations.

Goldhaber et al. (2011) also examined teacher quality measured by student academic performance but used this data to explore the early career paths of teachers and how job transitions related to student learning. With the goal of determining whether public schools are keeping their best teachers, the researchers examined the career paths of new female North Carolina elementary teachers as they commenced work in 1996-2002. Data restricted to grades 4-6 for these years were acquired from the state and consisted of detailed school, teacher, and student information. This data was then combined with local labor market information attained from the Bureau of Labor Statistics to create a statistical model to estimate teacher mobility outcomes. Teacher effectiveness was measured based on a value-added model estimating educator contribution toward student achievement on standardized assessments. The researchers then used Hazard models to estimate the risk of teacher career transitions given individual and school characteristics. Final analyses were constructed from a basic, discrete time, Hazard model including the aforementioned measures derived for teacher quality, teacher background characteristics, labor market conditions, and school characteristics. Results showed the probability of a highly effective teacher moving from a disadvantaged school (i.e., high poverty, high minority, or both) to a new school within the same district was 0.13 compared to 0.08 for a teacher moving from an advantaged

school. Similarly, the probability of a teacher moving from an underprivileged school to a new school outside the district was 0.10 verses 0.06 for a teacher moving from a privileged school. These findings reinforced prior research documenting the exodus of new teachers from disadvantaged schools (e.g., Hanushek et al., 2004; Lankford, Loeb, & Wyckoff, 2002) and extend the concern to include the loss of highly effective teachers. The researchers suggested the use of targeted incentives as a means of retaining effective teachers in underprivileged schools.

To address the gap in teacher quality, many studies have suggested various forms of teacher compensation increases (Figlio 1997, 2002; Ferguson, 1991; Loeb et al, 2005; Ronfeldt et al., 2013). While there is some discussion in the literature about the cost of raising teacher salaries, a substantial portion rejects Hanushek and Rivkin's (2007) premise that increases in teacher wages would be ineffective. According to Baker (2016a), arguments for compensation formulas that incentivize teacher productivity often ignore the role of experience and education within the traditional salary schedule and the indirect impact it has on student outcomes. Further elaborating on this point, Baker (2016a) suggested:

> While teacher salary schedules may determine pay differentials across teachers *within* districts, the simple fact is that *where* one teaches is also very important in determining how much he or she makes. Arguing over attributes that drive the raises in salary schedules also ignores the bigger question of whether paying teachers more in general might improve the quality of the workforce and, ultimately, student outcomes.
> (p. 5)

To support his argument, Baker (2016a) cited the studies of Murnane and Olson (1989), who concluded that teacher wages effected both the decision to enter teaching

and the duration of stay in the profession, as well as Figlio (1997, 2002) and Ferguson (1991), who found that higher salary correlated with teacher quality. Adding further depth to the argument, Baker (2016a) pointed to a study by Loeb and Page (2000) who found that a 10% raise in teacher wages could reduce high school dropout rates by 3% to 4%. In closing, Baker (2016a) conceded that teacher salary is not the only factor influencing teacher quality but argued ignoring its impact, and its subsequent effect on student outcomes, would disregard substantial evidence within the literature.

School Finance

Research on the cost of teacher turnover has emerged as an issue compounding teacher staffing challenges. Ingersoll and Perda (in press) are the most recent to estimate the financial cost of teacher turnover (as cited in Alliance for Excellent Education, 2014). Using data from the SASS (2007-08) and TFS (2008-09), they analyzed nationally representative random samples of public school teachers to determine the range in teacher attrition costs for each state. As a basis for creation of the cost range, the researchers used two cost estimates, one low and one high, drawn from Barnes et al. (2007). To calculate the low range cost, they multiplied the total number of teachers who left teaching in a state by the low cost estimate. They then multiplied the same group of teachers by the high cost estimate to establish the high range cost. The results showed that when the ranges for all states were added together, the national cost for teacher turnover was estimated to be $1 to $2.2 billion dollars a year.

As indicated in Alliance for Excellent Education (2014), Barnes et al. (2007) criticized previous studies use of formulas derived from industry, as opposed to school

data, because they believed such formulas failed to account for many of the veiled costs associated with teacher replacement. To address this concern, Barnes et al. (2007) and their partners at the National Commission on Teaching and America's Future (NCTAF) created a tool for estimating teacher turnover based on actual school data from the Digest for Education Statistics. Five school districts ranging in size (based on student enrollment), urbanicity, and student diversity were selected for analysis. Findings indicated that teacher turnover was highest in high-minority, high-poverty, and low-performing schools. For example, a typical low-preforming school in the Milwaukee Public School District (MPS) with an average school faculty of 55 was found to have twice the amount of turnover and spent $67,000 more annually to deal with the consequences of teacher replacement than high-preforming MPS schools. To address teacher staffing challenges and the cost attributed to turnover, the researchers suggested school districts develop a human resource strategy that included investing in well-prepared teachers and comprehensive induction programs.

A study by Shockley et al. (2006) was one of the first to successfully use school data to estimate the cost of teacher turnover. In their study, the researchers sought to design an instrument that could calculate a school district's cost to replace a teacher. Data was collected from two Florida school districts (Broward and St. Lucie County) in 2004-05 including school year budgets, which served as the basis for calculating costs. At the time of the study, the Broward County School District (BCSD) was the fifth largest in the nation serving roughly 270,000 students, 60% of which were minority, in 238 schools. The St. Lucie County School District (SLCSD) served about 40,000

students, 40% of which were minority, in 40 schools. Findings showed that while teacher turnover was higher in SLCSD (16.4%) than BCSD (7.25%), replacing a teacher in SLCSD costed much less ($4,631) than BCSD ($12,652). The researchers attributed the difference in turnover rate and replacement cost to BCSD's comprehensive teacher induction program which was more expensive to implement but was also more effective in retaining teachers. With this result in mind, Shockley et al. (2006) recommend that school districts invest in quality teacher induction programs. They argued that such programs might not only increase teacher retention, but improve teacher quality as retained teachers hone their craft with each year of experience.

Organizational Capacity

The importance of organizational capacity in school effectiveness and its influence on student outcomes has been well documented (Allensworth, Ponisciak, & Mazzeo, 2009; Alliance for Excellent Education, 2014; Berry, Daughtrey, & Wider, 2011; Fullan, 2011; Johnson, 2010; Lena, 2010). Unfortunately the organizational consequences of teacher turnover represent only a fraction of the literature; however, studies such as Guin (2004) could provide a template for future works in this area. Seeking to determine the characteristics of elementary schools that experience high turnover and the impact of turnover on schools' organizational functioning, Guin (2004) examined one large urban school district serving 47,000 students in 97 diverse schools. Seven years of student achievement and demographic information was collected from a statewide database, while data on school level teacher turnover was obtained from a state-mandated staffing form. Three years (2001-03) of staff climate data, taken from a staff

climate survey developed by the Center for the Study of Teaching and Policy (CTP), were analyzed for correlations with teacher turnover. Case studies of five schools within the District were also conducted in which principals and teachers were interviewed in order to gain a better understanding of turnover's human impact. Results from quantitative analysis related to schools' organizational capacity indicated that teacher turnover was both significant and negatively correlated with five of the six school climate concepts established for the study (i.e., school climate, teacher climate, principal leadership, teacher influences, and feeling respected). Findings from qualitative analysis indicated that schools with high rates of teacher turnover had lower levels of teacher trust, less teacher collaboration, a less unified instructional program, and the smallest applicant pool from which to replace exiting teachers. As a means to build the faculty experience necessary to strengthen organizational capacity and improve student outcomes, the researcher recommended financial incentives (i.e., signing bonuses, tuition reimbursement, or loan forgiveness programs) tied to years of initial teacher service and/or paying higher salaries to teachers who worked in lower-preforming schools.

California state studies have also exposed the degenerative effect of teacher staffing challenges on schools' organizational capacity. For years, The Center for the Future of Teaching and Learning (CFTL) reported on the status of the teaching profession in California. In the Shields et al. (1999) study, a representative sample of K-12 California public school teachers were surveyed regarding issues related to teacher development. Case studies of eight local teacher development systems were also conducted to gain a better understanding of these programs, their similarities and

differences, and their overall effectiveness. Additional research included an extensive review of secondary databases, analysis of state policy initiatives, and interviews of state policy-makers. Findings related to schools' organizational capacity indicated that the professional development in schools that experienced high turnover lopsidedly favored training new teachers to a point where the professional needs of experienced teachers were being neglected. Results also showed that teachers in schools that experienced high turnover collaborated less than schools with fewer staffing challenges. The researchers further argued that when high turnover schools are left to fill vacancies with underqualified and inexperienced teachers, "the overall level of professional expertise in the school drops too low to move the school in a positive direction" (p. 47). To make access to qualified and effective teachers more equitable in California, the researchers made several recommendations including: revamping state educator preparation programs, student loan forgiveness up to at least $20,000 for teachers that commit to working in a hard-to-staff school for four years, annual discretionary grants of $350 per student for up to three years to enable inadequately staffed schools to attract and retain fully qualified classroom teachers, raise beginning teacher salary from $32,000 to $40,000, revise reciprocity rules to allow more highly qualified teachers from other states to teach in California, and many policies aimed at eliminating the equitability gap in teacher quality.

Staffing and Other Challenges in Rural School Districts

Largely overlooked in education research and policy discussions, rural schools experience many of the same challenges that plague urban schools. Among these struggles are high rates of student poverty, low literacy rates, and low college attendance rates (Mitchell, 2018). The Center for Public Education also reported that rural schools have a hard time hiring and adequately training teachers and lack the resources to offer advanced course work to students (Lavalley, 2018). According to the Rural School and Community Trust, more than nine million students in the U.S. are educated in rural K-12 schools (Lavalley, 2018) and yet little has been done to address the problems impacting rural education or determine their cause.

In a review of the relatively sparse literature related to rural education, Lavalley (2018) painted a portrait of rural schools vastly different from the contemporary vision of a "pristine" and "idyllic" one-room schoolhouse "untouched by modern problems." She argued that poverty in rural areas was even greater than that in urban locales. As evidence, she cited Schaefer, Mattingly, and Johnson (2016) who discovered that more rural counties (64%) had high rates of child poverty than urban counties (47%); a 17% difference. Lavalley also claimed that the poverty experienced in rural areas was often a deeper poverty defined by family income below half the poverty line. She referenced a study by Farrigan (2017) who found that roughly 13% of rural children under age six had come from a home in deep poverty compared to 10% of young urban children. Further distinguishing the effect of poverty on student outcomes, Lavalley credited Graham and Teague (2011) whose research showed that the rural-suburban achievement gap in

reading nearly disappeared when socioeconomic status (SES) was held constant. She suggested that many rural students, already at risk due to their low SES, are further disadvantaged by their lack of access to advanced course work. To prove her point, she cited Mann, Sponsler, Welch, and Wyatt (2017) whose study revealed that only 73% of rural schools offered a minimum of one advanced placement course as opposed to 95% of suburban and 92% urban schools. In agreement with Hassel and Dean (2015), Lavalley argued the absence of advanced course offerings in rural schools may be the result of their typically small student populations paired with a miniscule teaching staff which likely provided little logistic flexibility beyond traditional course offerings.

Although more apt to graduate from high school, Lavalley referenced several studies (Jordan, Kostandini,& Mykerezi, 2012; Marŕe, 2017; Hill, 2014) that found rural students less likely to enroll in or graduate from college. In particular, she focused on a study by Marŕe (2017) who discovered that more than half of rural students (51%) never pursued any form of postsecondary education. In concurrence with recent research (Molefe, Proger, & Burke 2017; Schafft, 2016), Lavalley suggested that concerns over finance and physical distance could act as barriers for rural students considering a postsecondary education. While much research has professed to measure teacher quality, she proposed that the best grasp of educator value may be achieved by examining a number of indicators collectively (e.g., a teacher's selectivity of college attended, performance on standardized tests, level of degree and experience, and credentialing status). In terms of rural teacher quality, Lavalley suggested that the collective findings of current research examining educator value indicators could point to a lesser degree of

general teacher quality in rural schools in caparison to their counterparts in other locales. While rural teachers tended to have more experience on average, she cited Player's (2015) finding that fewer rural teachers graduated from a selective college and/or possessed a master's degree as evidence of a possible disparity in quality. Furthermore, Lavalley referenced Fowles, Butler, Cowen, Streams, and Toma's (2014) discovery that both urban and rural schools were less likely to retain highly qualified teachers, which she paired with Player's (2015) revelation that rural schools employed more novice teachers than all other locales.

In summation, Lavalley argued that the combination of persistent poverty, geographic isolation, and seeming inequitable teacher quality, "limit the academic achievement and educational attainment of rural students compared to their metropolitan peers" (p. 14). To address these challenges, she recommended rural schools consider an analytical approach to understanding teacher recruitment and retention patterns within their school, seek professional development opportunities for principals germane to the unique challenges of rural schools, contemplate forming or joining a consortium or striking a bilateral agreement with a neighboring school in an effort to pool resources to address mutual needs, and form or enhance relationships with state and regional postsecondary institutions to promote the benefits of rural areas to perspective teacher candidates and encourage research initiatives that address the concerns of rural schools.

A key reference for Lavalley, Player (2015) is one of few that employed advanced statistical analysis to examine the supply and demand for rural teachers. In an effort to summarize the current state of rural teacher labor markets in contrast to other school

types and sizes, the researcher examined 15 years of SASS data (1999-2011) by urban-centric local codes (i.e., urban, suburban, town, and rural) including three subdivided categories for rural (i.e., fringe, distant, and remote) established by the U.S. Census Bureau. To ensure findings were nationally representative, all statistical data was weighted. Statistical significance was determined using Ordinary Least Squares (OLS) regression based on a two-tailed test with rural and rural fringe serving as the reference groups.

Results related to staffing challenges indicated that rural schools were more likely than other school types to have a vacancy in a Science, Technology, Engineering, or Math (STEM) field; however, they were no more likely to have reported having difficulty filling vacancies than their counterparts. The greatest disparity in hiring was found to be English Language Learner teachers in which rural schools reported a difficulty rate 60% higher than urban schools. Analysis for subdivided categories of rural showed that remote schools were more likely to express difficulty hiring than other rural schools and with a statistically significant difference in STEM teaching fields. Findings related to teacher characteristics indicated that rural teachers were less likely to have graduated from a selective college and appreciable so the more remote a school. Although slightly more experienced on average, rural teachers were found less likely to hold a master's degree than teachers in other locales with prevalence declining as school remoteness increased. For example, when compared to suburban teachers, rural teachers were 20% less likely to have a master's degree. Results related to job satisfaction indicated rural teachers felt they had more teacher autonomy in the classroom, greater input in school

decision making than urban teachers, and an overall greater sense of job satisfaction than all their counterparts. However, rural teachers were found to earn roughly $10,000 less annually than suburban teachers and were reported to agree more strongly than all other school types that they would leave their job immediately should they secure a better paying alternative.

In interpretation of these findings, Player argued that the greater difficulty in hiring experienced by rural remote schools may be evidence of a restricted labor market pool of qualified teachers. He further suggested that the lower frequency of teachers graduating from a select college and/or possessing a master's degree could point to a lower standard of general teacher quality in rural schools; however, he acknowledged that research on this topic was mixed at best. Finally, he proposed that the greater overall sense of job satisfaction among rural teachers may be attributed to reports of greater autonomy in the classroom and inclusion in the school decision making process. However, he suggested that the large discrepancy in rural teacher wages, when compared to counterparts, and greater inclination for these teachers to leave for better pay could further complicate teacher recruitment and retention for rural schools. To address the staffing challenges in rural schools, Player recommended targeted bonuses, such as a signing or shortage field bonus, as opposed to pay scale changes or more general one-size-fits-all approaches. He also promoted the formation of rural school consortiums to market their favorable workplace conditions, such as greater teacher autonomy and voice, on recruiting websites or at job fair venues. In closing, Player echoed the potential of grow-your-own programs to improve teacher staffing and encouraged consideration of

virtual teacher programs or partnerships when vacant positions could not be filled by a quality applicant.

A work that could prove seminal to the issue of teacher staffing challenges in rural schools is Monk's (2007) study of recruitment and retention of high quality teachers in rural areas. Using data from the NCES 2003-04 SASS, he analyzed descriptive statics by school type and enrollment and examined variables for teacher and student attributes, district hiring criteria, difficult to fill teacher vacancy areas, and teacher average base salary. Results showed that rural and small schools have a below-average share of highly trained teachers and that teacher salaries were up to 16.5% lower than the national average. The share of difficult to fill teacher vacancy areas was also higher for rural and small schools than other school types and sizes. Analysis of student characteristics for rural and small schools revealed a larger share of students with special needs and students of low-income migrant workers. The researcher argued that these findings complicated rural and small school efforts to attract and retain high quality teachers. On the bright side, class sizes in rural schools were relatively small and their teachers reported general satisfaction with their workplace conditions. To address staffing challenges in rural areas, Monk recommended polices focusing only on hard-to-staff rural schools rather than blanket polices for all rural schools. When drafting policy, he suggested lawmakers examine indicators such as degree of difficulty in hiring, high turnover, percentage of teachers teaching subjects outside their licensed area, and percentage of students from low-income migrant workers. Monk also discussed the potential of grow-your-own programs, application of modern technology, and the pros and cons of financial

incentives as a means to improve staffing. To address high rates of poverty, he suggested that states consider measures to stimulate economic growth in rural areas. Adding to the bleak outlook, research on rural America post-2008 Great Recession indicate that poverty in these areas has increased but may not be entirely explained by the recession, which may suggest that rural areas can expect "a longer-term decline in economic conditions" that might not be reversed by the post-recession recovery (Thiede, Hyojung, & Valasik, 2017).

Educational Leaders' Experience of Staffing Challenges

Why is it that the literature on rural education related topics is so thin and why do so few articles detail school administrators experience leading rural districts? According to 57% of federal policy insiders, the lack of attention to rural education is a direct reflection of its diminished importance to the U.S. Department of Education whose policies appear to favor more densely populated suburban and urban school districts (Johnson et al., 2014). Whatever the cause, a recent review of the literature has further exposed a general disparity in terms of focus when the titles of popular peer reviewed education publications were found to, "feature the term urban approximately 16 times more frequently than the term rural" (Schafft, 2016). It should come as no surprise then that there is very little qualitative literature that conveys the challenges of staffing issues from educational leaders' perspective and even less from rural school administrators. Three works that provide a glimpse of educational leaders', including rural

administrators, experience and perspective of teacher staffing challenges are Johnson et al. (2014), the Wisconsin Department of Public Instruction (2016), and Sawchuk (2018).

In a study examining federal education policy, Johnson et al. (2014) investigated how federal policies impacted rural education. They interviewed eleven superintendents of rural districts in Georgia, Minnesota, Ohio, Colorado, Montana, and Kentucky to gain a better perspective of the challenges rural schools faced. The researchers applied insights gained from the interviews to design a paired survey on rural education which was subsequently utilized to collect data from rural Idaho school district superintendents and national policy insiders. The researchers defined federal education policy as, "federally administered programs as well as state policies spurred by federal law or regulations" which include programs like Title grants, Rural Education Achievement Program (REAP) grants, and several miscellaneous grants through the U.S. Department of Agriculture (p. 6). They expressed that the largest amount of supplemental funding of the three came from the Title formula grants. However, the researchers argued that these formulas do not favor rural school districts for two reasons. First, funding was weighted by a school district's number of disadvantaged students and the state's per-pupil spending level which disproportionately affected rural school districts who typically had small student enrollments and were often located in poor states with lower per-pupil spending. Second, Title formula grants had a cumbersome application process and reporting requirements that stretched the capacity of small administrative staffs in rural school districts that lacked the additional administrative personnel enjoyed by counterparts in other locales.

The researchers offered web-based surveys to 110 rural Idaho superintendents of whom 51% participated. The surveys were also extended to the Whiteboard "Education Insiders" panel, a Washington D.C. education consulting firm, to gain the prevailing perception of federal policymakers. Survey questions included topics such as, "the greatest challenges facing rural districts; perceptions of restrictive and burdensome policies and programs; and attitudes towards distance learning, district consolidation, and charter schools" (p. 16). Although representative and a valuable contribution to the literature, the researchers cautioned reader interpretation of findings due to the relatively small sample size of the "special populations" examined during the study.

Results indicated that the majority of both rural Idaho superintendents (80%) and national policy insiders (78%) agreed that, "most education policies are designed primarily for urban and suburban districts and are poorly suited for rural districts" (p. 16). The two surveyed groups disagreed; however, about the top three issues facing rural schools. Superintendents felt that the lack of federal funding for special education, burdensome federal compliance paperwork, and lack of spending flexibility in federal programs were the top challenges rural schools encountered; however, the policy insiders thought teacher recruitment, teacher retention, and lack of instructional technology were the most daunting issues for rural schools. The researchers argued that the disconnect may be due to policymakers' focus on reform potential and rural school leaders' attention to the resources needed for effective policy implementation.

Although they admitted that consolidation is sometimes unavoidable, nearly 70% of both surveyed groups agreed that forced school consolidation should be avoided if

possible. To aid in this effort, both surveyed groups recommended compensatory funding and service sharing measures for small rural school districts. While web-based learning was also discussed as a potential method to enhance instruction and expand course offerings, the two groups agreed that cost is one of the top barriers to implementation of technology dependent programs. On the topic of rural teacher quality, 58% of surveyed superintendents reported hesitation toward firing a low-preforming teacher due to concerns about their ability to find a replacement.

In consideration of all these findings, the researchers recommended that policymakers leave the REAP grant, Impact Aid, and PILT programs as currently written since they have proven to be "well suited to the different contexts of rural districts" regardless of geographic location (p. 27). However, they argued that the Department of Education competitive grants and Title I formula are "unfair" to rural school districts. To correct issues within the Department of Education competitive grants, the researchers suggested reducing reporting requirements, modifying it to better suit rural schools, and allowing educational cooperatives or informal groups representing small rural districts to complete grant applications on behalf of the schools they serve. Likewise for the Title I grant program, they recommend that reporting requirements be reduced, and the funding formula adjusted to "ensure equity for [all] rural school districts" (p. 28). The researchers further encouraged policymakers to be mindful of polices on assessment and enrollment that might deter use of blended learning in rural areas and promoted development of future grants aimed at making implementation of blending learning more affordable in rural school districts. They also advocated for the expansion of broadband access,

through programs like ConnectED and E-rate, as a means to make blended learning a more viable option in rural areas. To address the inequity of rural teacher wages, the researchers proposed that the Federal Government consider, "a tax credit for the cost of moving expenses; tax incentives to help rural teachers with the purchase of a home; and expanding the eligibility criteria for the Teacher Loan Forgiveness program to include more rural teachers [regardless of grade level or content specialization]" (p. 31). As for rural school leaders, they suggested consideration of administrative service sharing, such as educational cooperatives, to mitigate the cost of both specialized and administrative personnel.

In 2016, the Wisconsin state superintendent of Public Instruction convened a working group to review the challenges contributing to the state's teacher shortage and to discuss potential solutions. The ten-member group consisted of school district administrators, principals, and former state teacher of the year honorees. The purpose of the group was to determine actionable solutions that the Department of Public Instruction (DPI) could implement as quickly as possible. Three working group meetings and one teleconference were held to ultimately produce a report on the state of school staffing challenges in Wisconsin and what could be done to address the problem.

In general discussion of the issue, the group expressed that staffing challenges in specific disciplines and geographic locations had reached "critical levels" and that the teacher shortage was "rapidly expanding into nearly all areas of K-12 education." They also reported less applicants for all vacant positions, regardless of discipline, and fewer "standout candidates" among them. Rural working group members reported that they

were “shorthanded everywhere” and that their teachers had to assume additional roles in order for the school to properly function. Elaborating, the rural members recounted that several of their teachers “were forced to hold multiple positions simultaneously to keep programs running” (p. 6). Even the rural group members themselves, who were administrators, had to assume multiple roles. One of these members reported serving as a superintendent for two school districts while the other claimed responsibility for the superintendent, elementary principal, transportation director, grants coordinator, and curriculum director positions in his/her school district. The rural representatives also mentioned that they had to terminate some programs due to their inability to recruit and hire a qualified teacher. Applying a sports analogy, the group compared the teacher recruiting environment to “free agency” in which, “competition for high demand and talented teachers [was] fierce, and financial and geographic differences put many districts at a competitive disadvantage” (p. 7). Among other factors influencing staffing challenges in Wisconsin, the group also cited legal barriers preventing retired educators from returning to the classroom, a growing state-wide perception that teaching is no longer an attractive career path, and licensure barriers such as subject endorsement rules, lengthy processing time, requirements for a reading exam, requirements preventing specific positions from being combined, and the perception that obtaining a traditional or alternative license is very complex.

To address these concerns, the group recommended to: 1) make it more attractive for retirement eligible teachers to remain working longer and to eliminate barriers that prevent retired teachers from returning to the classroom, 2) create a pathway that will

allow currently licensed teachers to teach in areas outside their endorsement without penalty, 3) provide school districts with more flexibility in hiring when a position cannot be filled with a qualified applicant, 4) streamline teacher licensing to reduce processing time, application length, filing costs, and improve out-of-state reciprocity, and 5) establish a collaborative partnership with the state college and university system to target specific staffing concerns and better prepare new teachers for the current educational environment and workplace conditions.

In an article portraying the harsh realities of teacher staffing in rurally isolated areas, Sawchuck (2018) interviewed the superintendents and teachers of two remote rural schools in Colorado and asked them to discuss their staffing predicament. One of the towns, Rangely, was located in the high desert and had a population of 2,300. The news of the week was the loss of their only stoplight. Unfortunately, stoplights were not the only thing disappearing in the town; teachers were leaving too. According to the school district superintendent, roughly 15% to 20% of their teachers were lost to turnover each year. The other town, Otis, was located in the eastern plains and had a population of 500. Although smaller, the town still maintained its single stoplight; however, they too struggled to retain teachers. Citing an Education Week Research Center analysis, Sawchuck claimed that, "18% of school districts nationwide are considered remote and rural—meaning they are at least 25 miles away from a city of at least 50,000 people and 10 miles from a town of at least 2,500 people." He argued that when towns like Rangely and Otis lose a teacher, they also lose a productive member of their small community. The school district superintendent in Otis described the community response to losing a

teacher as “panic” and that the fallout could “really change kids' trajectories” because the school often can't find another teacher “who will continue to challenge [their] students.”

With personnel constraints, teachers in these schools described their job as very demanding due to all the additional duties they had to shoulder. One teacher described his workload as “100% full” and that there was “literally almost a meeting or somewhere you [had] to be every evening, and it's exhausting.” Sawchuck argued that rural special education teachers had particularly “crushing caseloads” and that salary differential compared to urban school districts like Denver could be in excess of $10,000 dollars more than what they earn at their rural school. Recruiting teachers to these rural towns may be just as difficult as retaining them. The Rangely superintendent described his experience at job fairs as feeling like a “used-car salesman” trying to talk aspiring teachers into working in an area that they “don't even know where it is.” The Otis superintendent had used alternatively certified teachers to fill vacant positions in the past but believed it might not be, “the most effective approach.” While some local community members may obtain an alternative license to “help out their local district,” the Otis superintendent felt that teaching for many of them was not “their calling or passion.”

The teachers from both rural towns felt that increasing salary may help their school district have a better chance of attracting and retaining teachers. However, Sawchuck posed that raising teacher salaries may be more difficult for some rural districts due to their unique circumstances. He pointed to the farmland surrounding Otis and its lack of industry as barriers to passing bonds or tax increases needed to raise

teacher wages to a more premium and competitive level. When asked what the most important factor was to keeping them in their district, the teachers of both rural towns agreed that supportive administration was key. They felt that their administrators were on their side and were open to their ideas and suggestions. The Otis superintendent added that a supportive and inclusive administration can also prevent other school districts from "poaching" talented teachers. She mentioned that she could think of three school districts that she could, "easily steal teachers from that had difficulties at the school board level which resulted in turnover in the administration and insecurities for the teaching staff." Four day school weeks and small retention bonuses were also reported by the teachers as having an impact on their decision to stay in their district. In closing, Sawchuck offered some practices with potential to improve rural staffing challenges including grow-your-own programs and university programs that offer student teachers a stipend for placement in a rural school.

Teacher Staffing Challenges in Montana

According to the most recent U.S. Department of Education Title II report (2016), enrollment in Montana teacher preparation programs decreased by roughly 47% from a high of 4,244 in 2010-2011 to a low of 2,226 in 2014-2015. Additionally, state teacher program completers also decreased by roughly 12% from a high of 828 in 2011-2012 to a low of 726 in 2014-2015. When compared to Montana critical teacher shortage areas alone, these numbers are alarming. According to OPI, there were 688 critically hard to fill teacher vacancies in 2014-2015 and 785 such vacancies in 2015-2016 (Quinlan &

Furois, 2015, 2016). Even if all the 2014-2015 Montana new teacher candidates completed programs in hard to fill areas, they would barely fill the 2014-2015 vacancies and be insufficient to fill the number of 2015-2016 openings. Since it is doubtful that the majority of Montana's new teacher candidates are completing programs in critically hard to fill subjects or that they are choosing to begin their career in Montana when neighboring states offer significantly higher compensation (i.e., Wyoming and North Dakota), these shortage areas do not appear to be improving. When combined with an upward state trend in critically hard to fill vacancies, the downward trend in new teacher candidates could signal a need for the state to shift from contemporary theory, which suggest staffing problems are more the result of organizational conditions (Ingersoll, 2001), to a blended understanding that incorporates the principles of supply and demand based research from decades past (Darling-Hammond, 1984; Grissmer & Kirby, 1987, 1993, 1997).

Teacher recruitment and retention in Montana was a hot topic heading into the 2017 state legislative session. Beginning in the fall of 2016, the Missoulian newspaper began publishing a series of stories about the teacher staffing challenges across the state. In one of these stories, Davis (2017) suggested that teacher recruitment "always comes down to salary, and in Montana, that's often a hard sell." Citing the National Education Association, she reported that the average base or beginning salary for teachers in Montana is the lowest in the nation, and that "it's even lower in rural districts." Davis offered the Missoula area as an example explaining that base teacher salary can range anywhere from $26,000 to $37,000. Quoted in the story, DeSmet School Principal Matt

Driessen worried that the high cost of living and expensive housing in the Missoula area is pushing young teachers to other states like Minnesota where the cost of living appears equal to that of Missoula but the pay is substantially higher. Driessen further expressed:

> The most important thing you can do is hire qualified teachers and the most important thing a student could do is go to that class every day. If it means they go to school longer, or we pay more money, that's something we as a community and as a state have to talk about. How much are we willing to invest into the success of our children? That's the question.
> (as cited in Davis, 2017)

A recent study by RISE4MT (2016) provided quantitative evidence to support the notion that disparities among what schools can afford to pay teachers is part of the recruitment and retention problem in Montana. Using a hybrid survey (online and live telephone interview) designed by Zogby Analytics, the RISE4MT coalition questioned 602 teachers and 200 school administrators across Montana to determine their views related to their jobs, occupation, and overall educational climate. Participant demographic information included gender, age range, job assignment, college attended, and county of teacher's school district. Counties were grouped into the following eleven regions: 1) Lincoln, Flathead, Lake, 2) Hill, Blaine, Phillips, 3) Valley, Daniels, Sheridan, Roosevelt, 4) Garfield, McCone, Richland, Dawson, Prairie, Wibaux, 5) Cascade, Judith Basin, Petroleum, Fergus, Wheatland, Golden Valley, Musselshell, 6) Sanders, Mineral, Missoula, Ravalli, 7) Granite, Powell, Deer Lodge, Silver Bow, Jefferson, Beaverhead, Madison, 8) Broadwater, Meagher, Gallatin, Park, Sweet Grass, 9) Stillwater, Yellowstone, Treasure, Big Horn, Carbon, 10) Rosebud, Custer, Fallon, Powder River, Carter, and 11) Glacier, Toole, Liberty, Pondera, Teton, Chouteau, Lewis & Clark.

Findings indicated that salary was either very or somewhat important for 91% of the teachers surveyed when determining their place of employment; job availability (91%), retirement (89%), and health care benefits (86%) were also considered important factors. Salary was also reported as one of the top three reasons for teachers to consider leaving their school (39%), falling slightly behind the school climate factors "lack of support" (42%) and "dissatisfaction with school administration" (40%). Disaggregated results showed that salary was a more important factor in male teachers' decision to leave their school than female teachers (47% vs. 36%) and for teachers under age 40 than teachers over 40 (45% vs. 35%). A higher salary was also reported by 80% of the teachers surveyed as one of the most critical factors for retaining good teachers in Montana. No significant findings related to the college a teacher attended were reported.

Crosstabs of regional data revealed some variation among regions on issues related to salary and school physical location. For example, the vast majority of teachers (88% or higher) from every region except Region 1 (48%) reported that salary was a somewhat or very important consideration in their selection of employer. Salary was also a factor in which teachers felt somewhat to very dissatisfied; however, there was some variation among locales. For example, Regions 1, 2, 5, and 10 ranged from 26% to 33% teacher dissatisfaction with salary and Regions 3, 4, 6, 7, 8 , 9, and 11 ranged from 38% to 56%. The variation in regional findings related to teacher attitudes toward salary may be an indication of significant teacher wage disparities among regions. These findings should be interpreted with some caution, however, due to the lumping of rural districts with larger urban areas in more than half the regions outlined in the study. For example

according to the U.S. Census Bureau, the state's seven largest cities, with populations approximately ranging between 20,000 and 100,000, are located in Region 5 (i.e., Great Falls), Region 6 (i.e., Missoula), Region 7 (i.e., Butte-Silver Bow), Region 8 (i.e., Bozeman), Region 9 (i.e., Billings), and Region 11 (i.e., Kalispell and Helena). The presence of these cities within these regions could skew the teacher self-report data as the sample seemed to contain larger numbers of teachers from the "higher paying" more densely populated "urban areas" than the "lower paying" less populated "rural areas" (Stoddard & Young, 2005). Therefore, it is possible that some within region variation may also exist but may be masked by the regional make-up presented in the study.

Regional data related to school physical location showed variation among locales in the percentage of teachers that felt lonely, isolated, or disconnected. For example in Regions 1, 6, 7, 8, 9, and 11, less than 20% of teachers reported feeling lonesome and detached; however, over 20% of teachers in Regions 2 and 5 and more than 30% in Regions 3, 4, and 10 had experienced feelings of isolation and loneliness in the area they lived and worked. Again, regional alignment may mask some data within regions related to school physical location; however, the current evidence suggested teachers in heavily rural regions feel more isolated and lonely than teachers in regions that include one of the seven largest cities in the state. This finding may explain, in part, why it is often more difficult to recruit and retain teachers in rurally isolated Montana school districts than those in urban or suburban areas (Stoddard & Young, 2005). On the other hand, an interesting trend in the data may point to a potential solution posed by much of the current literature.

The percentage of teachers in each region that reported already living in the area as a critical factor in their choice of employer ranged from 38% to 67%. This finding may suggest that the "grow your own" approach to teacher recruitment and retention could be a promising method for Montana school districts struggling with staffing challenges. Survey feedback from superintendents revealed that 59% believed the overall quality of a typical teacher applicant pool had declined over the past five years; a finding strikingly comparable to the previously referenced Johnson et al. (2014) study, in which 58% of surveyed Idaho superintendents reported hesitation toward firing a low-preforming teacher due to an extremely limited or non-existent applicant pool. The RISE4MT researchers suggested that their findings are well supported in Montana case law citing Judge Sherlock's opinion from December of 2008, in which he described the recruitment and retention of teachers in rurally isolated school districts as a "continuing problem." He further declared:

> While the State has made progress in this regard, it would be helpful if more could be done to ease these problems. As noted, increasing salaries for rural and isolated districts would have a noticeable impact on recruitment and retention problems.
> (as cited in RISE4Montana, 2016, p. 9)

To address Montana teacher staffing challenges, the researchers proposed streamlining current reciprocity rules to allow more qualified out-of-state teachers to obtain work in Montana.

Following the publishing of study results, the RISE4MT collation presented their research to the state's School Funding Interim Commission. After consideration of the data and discussion of potential solutions, the Commission (McCracken, Sankey, &

Grover, 2016) issued several recommendations including: revising the state Quality Educator Loan Assistance program, a program funded by the state to pay back student loans up to $3,000 per year for up to four years for teachers employed in a qualifying school and who teaches within a qualifying subject area, as defined by the annual state Critical Quality Educator Shortage report; promoting and raising awareness of quality teacher induction programs as a means to improve teacher retention; encouraging state teacher preparation programs to include a rural preservice experience; and encouraging institutions within the Montana University System to expand affordable teacher preparation course offerings in locations that benefit recruitment in rural Montana and through online classes that may better suit potential teacher candidates living in rurally isolated areas. Sadly, legislators stripped funding from the Quality Educator Loan Assistance program at the conclusion of the 2017 session.

Also heavily relied upon in the School Funding Interim Commission's recommendations was a state study by Stoddard and Young (2005), which examined Montana teacher staffing challenges in relation to teacher compensation. The researchers used Montana data from four cycles of SASS (1987, 1990, 1993, and 1999) and the 2000-01 TFS as the primary source for analysis. This data provided quality coverage of Montana, especially in the 1999 wave which included 1,078 teachers, about 10% of the teaching workforce at the time, representing 168 schools in 124 different districts. To ensure validity of study results, they compared analysis of the SASS and TFS data with data from other Montana studies, OPI, MEA-MFT, Montana Teachers Retirement

System, the Montana Small Schools Alliance, and state statistics on record with the U.S. Department of Education.

Results from regression analysis indicated that teacher turnover was higher in both geographically isolated school districts (6.6 to 8.9% higher) and school districts that paid the lowest teacher salaries (2.8 to 3% higher). The percentage of misassigned teachers was also shown to be significantly higher in these districts as well (4 to 12% for isolated and 7 to 13% for low salary). Therefore, teacher salary and geographic isolation were found to be correlated meaning that the most isolated school districts also paid the lowest teacher salaries and experienced the worst staffing challenges. Further regression analysis showed that by increasing teacher salaries by 10% in the lowest paying districts, they could expect declines in difficulty hiring by 10%, turnover by 20%, and misassigned teachers by 30%. Assuming all other factors equal between districts, a 10% raise in wages for teachers in a geographically isolated school district was predicted to offset the impact of an increase in isolation of 20 square miles per student. With these findings in mind, the researchers recommended that the state consider providing additional funding to increase teacher pay in rurally isolated districts since they struggle the most with teacher recruitment and retention. They argued that such a policy is likely to have more of an impact on teacher staffing challenges because it would be directly focused on the problem.

Summary

With a foundation based on PEST and stability politics in school funding policy, the study's conceptual model could help stakeholders better understand the teacher staffing challenges in rurally isolated, impoverished Montana school districts and the conditions that may exacerbate the issue. Undeniable in the literature, teacher compensation, workplace conditions, and administrative support have been consistently exposed as factors contributing to problems in teacher recruitment and retention. Many studies have revealed declines in teacher quality and student outcomes as a result of frequent and/or high teacher turnover. The annual financial burden to recruit, hire, and train new teachers can siphon money away from other pressing school needs. Organizational capacity also could also suffer each year that school districts are forced to spend their time, resources, and professional development on assisting new teachers at the expense of those already on staff. Montana is no exception to these challenges. State studies indicate that teacher staffing is a disproportionately growing problem for rurally isolated, impoverished school districts. While research points toward targeted financial support as the most likely measure to improve teacher recruitment, retention, and faculty quality in the Montana school districts experiencing the worst staffing problems, recommendations from the 2017 state congressional School Funding Interim Commission focused primarily on nonmonetary measures. The lone exception, the Quality Educator Loan Assistance program, was ultimately left unfunded.

CHAPTER THREE

METHODS

This research sought to investigate teacher staffing challenges in poverty stricken rurally isolated Montana School Districts, investigate the role of school funding policy on the problem, and provide a qualitative supplement to the RISE4MT (2016) data by studying teacher recruitment and retention through the lived experience of Montana superintendents in qualifying school districts. To guide this research, the following questions were posed:

- How do superintendents from rurally isolated, impoverished Montana School Districts describe their experiences with teacher staffing challenges?
- How do superintendents from rurally isolated, impoverished Montana School Districts describe their experience of the impact of Montana school funding policy on teacher staffing?
- How do superintendents' from rurally isolated, impoverished Montana School Districts descriptions of their experiences with both teacher staffing challenges and school funding policy align with the RISE4MT (2016) data trends?

Design

Hatch (2002) describes qualitative research as the pursuit of understanding the world through, "the perspectives of those living in it" (p. 7). Therefore, a qualitative researcher is keenly interested in the lived experience of individuals who encounter or endure a phenomenon of interest (Merriam, 2002). In order to investigate this study's contemporary phenomenon of interest, teacher staffing challenges in remote and poor

Montana school districts, this research utilized a multiple instrumental case study design (Stake, 1995). This design is appropriate for the present study because it permitted the researcher to illustrate a current problem though investigation of specific cases bound by state school funding policy and its impact on teacher staffing (Stake, 1995). Particular attention was paid to contextual conditions, often absent in quantitative study, which may be of significance to the phenomenon of interest (Yin, 1994). This study was substantiated through its conceptual model which applied punctuated equilibrium social theory to help describe and explain the conditions that perpetuate teacher staffing challenges in rurally isolated, impoverished Montana school districts (Hatch, 2002). In order to discover the authentic meaning of participants' experiences, the study was largely exploratory in nature and thus allowed the researcher to draw distinctions between his own experience with teacher staffing challenges as well as findings within the literature (Creswell, 2007). Utilization of focus groups and individual interviews as the primary means of gathering data rendered the researcher as the key instrument of data collection (Hatch, 2002). Initiating the study with two focus groups of eligible participants provided data and insights that would have been, "less accessible without the interaction found in a group" (Morgan, 1997, p. 2). The two focus groups, one representing eastern Montana and one representing western Montana, each included four qualifying superintendents for a total of eight participants. Borne of these focus groups, four individual representative case studies, two from the east and two from the west, were selected for individual interview. The researcher conducted typological data analysis on focus group and case study interview transcriptions and interactively collaborated with all

participants to establish a comprehensive set of themes; a process called member checking (Creswell, 2007; Hatch, 2002; Gay et al., 2012). The themes were used to construct an interpretation of the data, communicated in the Discussion chapter, which focused on "explanations, insights, conclusions, lessons, or understandings" drawn from analysis (Hatch, 2002).

Sampling

A criterion purposeful sampling strategy would be appropriate for a study seeking to investigate a problem through the lived experience of individuals representing a unique group that share the same struggle (Creswell, 2007). Two focus groups of eligible Montana superintendents, one representing school districts west of the Rocky Mountains Great Divide and one representing those east, were held during a Montana Association of School Superintendents (MASS) regional meeting. From each focus group, two representative superintendents were selected for in-depth interviews and formed the basis of four individual case studies. Study participation was determined utilizing the Montana Office of Public Instruction's (OPI) 2015 list of schools impacted by critical quality educator shortages (Quinlan & Furois, 2015) and the U.S. Department of Education's definition of a high poverty school for the purpose of operating a schoolwide Title I program (ESEA section 1114(a)(1)). The critical quality educator shortages list was compiled by OPI using a 24 point rubric based on the factors of rural isolation and economic disadvantage. Scores for each category ranged from one to eight points. Rural isolation was determined through population density codes established by the National

Center for Education Statistics (NCES) and the U.S. Census. These codes ranged from 11 to 43 based on standards for population density and proximity to an urbanized area. School districts within a geographic area classified as rural, distant were given a code of 42 and those distinguished as rural, remote a code of 43. For the purpose of their report, OPI assigned four "isolation points" to school districts in rural, distant zones and eight points to those in rural, remote areas. Economic disadvantage was established based on a school's percentage of students qualifying for free or reduced meals. For the current study, only superintendents representing districts encompassing both elementary and high schools, those coded as rural – remote (i.e., a minimum of 25 miles away from a city of at least 50,000 people and 10 miles from a town of at least 2,500 people), and those with at least one or more high poverty schools (i.e., a school with 40% or more students qualifying for free or reduced school meals) would be included. Because OPI's indicator for low student achievement relied on outdated NCLB standards and scores from a state assessment that was abandoned at the conclusion of the 2012-13 school year, it was not included as a criterion for participation in this study. By meeting OPI's rigorous standards for inclusion on the Critical Quality Educator Shortage list, qualifying school district superintendents seemed ideal participants for a study seeking clarity about teacher staffing challenges in rurally isolated, impoverished Montana public schools.

Participants

Since school district superintendents have ultimate oversight of school staffing, they may provide a broader prospective of teacher recruitment and retention challenges

than other professionals within Montana public education. Montana superintendents are often involved in the staffing process as recommendations for hire typically require some form of their consent before submission to the school board for approval. As the chief administrator serving a rurally isolated, impoverished school district, the superintendent would most certainly be aware of any school within the district struggling to recruit and/or retain teachers if not directly involved in crafting a solution to address the concern. The superintendent would also have a good understanding of the school district budget and how it may impact teacher staffing. To establish focus groups, MASS regions were first sorted by geographic location, east or west of the Rocky Mountains Great Divide, and their number of qualifying potential participants. Those regions that included four or more possible case study participants, and thus better odds for study solicitation, were pooled together and then selected from at random, one from the east and one from the west, to determine the two focus groups. These MASS regions were also singled out because their increased number of qualifying school districts would likely provide more diverse and representative focus group data. Case study superintendents were individually selected by the researcher, from among the qualifying focus group participants, based on the perceived representative nature and volume of their responses during focus group discussion.

Positionality

At the time of the study, the researcher was thirty-six years old, Caucasian, held a M. Ed. in Educational Leadership, and was nearing completion of an Ed. D in the same

field. He had five years of full-time teaching experience at the high school level and eight years of school administrative experience within public education. His administrative experience included work as a building principal across all grade levels (K-12) and at the district level as superintendent. Most of his administrative experience came from one small, rurally isolated, impoverished northwestern Montana school district, while his teaching experience had been spread across three states and various school sizes ranging from rural (grades 9-12 population of 85 students) to suburban (grades 9-12 population of 1,800 students). His interests in teacher staffing stemmed from personal experience of the struggle to recruit and retain quality teachers while an administrator for the aforementioned school district in northwestern Montana. The researcher felt that discrepancy in teacher salary schedules, especially for base or beginning teacher wage, among Montana school districts made it difficult for small, remote, and poor school districts to recruit and retain high quality teachers. He believed this notion was especially true when competing with larger school districts that offered a higher salary schedule and/or location in a more desirable geographic area. The researcher currently serves as a principal in a moderate sized elementary school (K-6 enrollment of 250 students) within a class A Montana school district.

Data Collection

Focus groups and qualitative interviews were used as the procedure to collect data for this study. This style of data collection was preferable because, unlike other research methods, it provided an opportunity for follow up questions (Creswell, 2007). There

were no reasonable foreseeable or expected risks for participation in the study; however, there may have been unknown risks. During each of two MASS meetings, one east and one west, selected for focus group administration, all qualifying superintendents in attendance were extended a verbal invitation and typed consent form to participate. Following analysis of focus group data, two eligible superintendents from each focus group were then verbally invited and given a consent form to participate in an intensive case study. Qualitative interview data was obtained through multiple phone or video call interviews with the superintendents of the four case study districts. Both focus group and case study interviews were based on semi-structured, open-ended questions and were audio recorded with a secured cell phone recording app. Interview recordings were transcribed using a computer and stored in a password protected computer file. No personal demographic information was collected from participants. Interview questions pertained to the nature of staffing problems in the participant's school district, his or her experience with these challenges, the perceived impact of staffing challenges on student outcomes, and his or her thoughts about the role of school funding policy in teacher staffing. The study's Tables of Specifications that justify the research, focus group, and interview questions may be found in Appendix A and B, while the focus group and case study protocols may be found in Appendix C, D, and E. County and community data pertaining to the participating school districts, as well as data from RISE4MT (2016), was also obtained for the purpose of comparative analysis.

Data Analysis

LeCompte and Preissle (1993) described typological analysis as the process of dividing qualitative data into groups based on predetermined categories established by the researcher (p. 257). Hatch (2002) argued that typological analysis is appropriate for studies whose dataset is primarily drawn from focus groups and/or interviews (p. 152). Applying Hatch's (2002) typological model, analysis for this study began by establishing typologies based on two of the study's primary objectives: superintendents' experiences of staffing challenges and the impact of school funding policy on staffing challenges. Using Spradley's (1979) approach of identifying semantic relationships within qualitative data, the interview transcriptions of two focus groups and the succeeding representative case studies where then searched for specific elements of experience as it related to the aforementioned primary objectives. The semantic relationships discovered were reinforced with select data excerpts that conveyed the essence of participating superintendents' experience of teacher staffing challenges and the role of state school funding policy in the issue. Relevant documents from representative case study districts were also examined with the same process and purpose in mind. After detailing exposed semantic relationships and supporting with participant narratives, analysis moved to a search for themes within and across typologies. All data was then reexamined to ensure themes were supported and to determine if any data ran counter to proposed themes. The researcher then converted supported themes into statements of generalization and argued that they had, "the status of general explanatory statements" (Potter, 1996, p. 151).

Study trustworthiness was established through bracketing the researcher's personal experience, peer review, and member checking with all participants including those in the focus groups (Creswell, 2014; Gay et al., 2012; Hatch, 2002). Research credibility and confirmability was achieved by placing an emphasis on both descriptive and evaluative validity (Gay et al., 2012). Descriptive validity was established through the semi open-ended structure of the interviews which allowed participants to answer in his/her words as opposed to selecting from a predetermined list of responses (Creswell, 2007). Evaluative validity was established in two ways: through peer review, a process in which neutral parties analyze the study results for reporting accuracy; and member checking, a technique allowing participants to review the transcriptions of their individual focus group contributions and/or case study interview for reporting accuracy (Creswell, 2007; Hatch, 2002; Gay et al., 2012). The confirmability of the study was addressed through bracketing of the researcher's personal experience with teacher staffing challenges, which has been argued to reduce criticism of personal bias in the reporting of research findings (Creswell, 2007; Hatch, 2002). Study reliability was achieved through the rigorous process of interview transcription and thematic coding (Gay et al., 2012). Both dependability and transferability were addressed through thick and rich description of teacher staffing challenges in poor, rurally isolated Montana public school districts and the perceptions of the superintendents who experienced it (Creswell, 2007). Finally, study authenticity was established by way of in-depth and precise reporting of participant responses as verified through peer review, member checking, and triangulation with

county and community data as well as other state studies such as RISE4MT (2016) and Stoddard and Young (2005).

Summary

The purpose of this multiple instrumental case study was to investigate teacher staffing challenges in some rurally isolated, impoverished Montana school districts, the role of state school funding policy in the recruitment and retention of high quality teachers in some of these districts, and provide a qualitative complement to enhance and deepen the quantitative RISE4MT (2016) data. Superintendents were targeted for study since they serve as the chief administrative representative of school districts. Criteria for participation included serving a district that encompassed both elementary and high schools, a district geographically coded as rural – remote (i.e., a minimum of 25 miles away from a city of at least 50,000 people and 10 miles from a town of at least 2,500 people), and a district with at least one or more high poverty schools (i.e., a school with 40% or more students qualifying for free or reduced school meals). Two focus groups, one for eastern Montana school districts and one for western Montana school districts, of four qualifying superintendents each, a total of eight participants, and four representative case study interviews, two drawn from each focus group, were the primary method of data collection. Focus groups were selected at random from two researcher complied lists of MASS regions, one for regions east and one for those west of the Rocky Mountains Great Divide, that contained a minimum of four qualified school districts. Case study participants were selected from the focus groups based on the perceived

representative nature and volume of their responses. Typological analysis was performed on data transcripts to expose themes that were ultimately used to establish statements of generalization and convey the essence of participating superintendents' experience of staffing challenges as well as their perception of the impact of school funding policy on the problem. The trustworthiness of the study was established through bracketing the researcher's personal experience, peer review, and member checking with all participants.

CHAPTER FOUR

FINDINGS

Spadley's (1979) method of identifying semantic relationships was applied to analyze the qualitative data collected during this study. A semantic relation is defined as: "Any relation between two or more words based on the meaning of the words" (Semantic relation, n.d.). As described in Hatch (2002), the portions of Spadley's tool that were implemented for this analysis include strict inclusion (X is a kind of Y), rationale (X is a reason for doing Y), cause-effect (X is a result of Y), means-end (X is a way to do Y), function (X is used for Y), sequence (X is a step in Y), and attribution (X is a characteristic of Y) (p. 155, 165). Semantic relationships discovered for the eastern MASS focus group are presented according to two of the study's primary objectives, superintendents' experiences of staffing challenges and the impact of school funding policy on staffing challenges, and are followed by relationships found for each of the Eastern representative case studies. Relationships are supported by excerpts from the data and subsequently interpreted by the researcher. Themes are then proposed and general explanatory statements made. Findings pertaining to all eastern data are then summarized. Findings for the western MASS focus group and each of the western representative case studies are presented in the same manner. A comparison of findings from the east and west, along with accompanying summary, concludes the chapter.

East Focus Group

Four qualifying superintendents participated in the eastern MASS focus group. These superintendents qualified for participation by representing school districts that were designated by US Census standards as rural – remote, a geographic location 25 miles away from a city of at least 50,000 people and 10 miles from a town of at least 2,500, and had at least one or more high poverty schools (i.e., a school with 40% or more students qualifying for free or reduced school meals). While non-qualifying superintendents also participated to help generate and drive a more robust discussion, only data collected from the four qualifying superintendents were included in the findings. Three total questions were posed: one pertaining to superintendents' general experience of staffing challenges in their school district, one about the impact of staffing challenges on student outcomes in their school district, and one regarding the impact of school funding policy on staffing challenges in their school district. These questions can be found in the Table of Specifications in appendix A and in the focus group protocol in appendix C. In order to protect the anonymity of participants, no demographic data that would identify the superintendents or their district was collected.

Experience of Staffing Challenges

Four primary semantic relationships (attribution, cause effect, means end, and rationale) and three secondary (function, sequence, and strict inclusion) emerged from typological analysis of the data relating to the eastern focus group superintendents' experience of staffing challenges. The secondary relationships provide context, while the

primary relationships convey the essence of the experience according to participants (see tables 2-4 in appendix F-H).

All of the Eastern superintendents reported receipt of few teacher applicants regardless of content area or grade level. Two of the four specifically mentioned an experience with an out-of-state applicant while all appeared to agree, either verbally or by nodding, that the teacher applicants they received currently were not of the quality that they had acquired in the past. One superintendent whose experience may best summarize this issue for these eastern Montana school districts shared the following account:

> We had two elementary openings last year. We also had two applicants. We filled the positions with the two applicants. The first applicant worked out just fine. The second applicant was from out-of-state and took the Praxis test seven times and failed the Praxis test seven times. So, we then got an accreditation ding in our elementary for having a non-licensed teacher and we really didn't have a choice in the matter. We had two applicants and hired the two teachers that applied. That's kind of the way things have gone for us. It's typically one to two applicants for any position, two if we're really lucky.

The superintendent's story of struggle recruiting high quality teachers seemed to exemplify the nature of the problem for these eastern school districts. Although they had two open positions, they only received one applicant for each. That even after seven attempts, one of the two applicants could not pass the Praxis exam, a kind of test necessary for teacher certification and used to assess content knowledge, speaks to the diminishing quality of applicant these school districts receive. Unfortunately, their recruitment problem also appeared to be becoming more widespread across grade levels and content areas. As one of the eastern school district superintendents retold:

> I had a Physical Education opening. It used to be where there would be quite a few people that had that endorsement. I only got 2 applicants and

> both of them were either non-renewed or going to be non-renewed. I listed it twice in state and out-of-state too. Actually, one of the applicants I received was from out-of-state. So, I guess it's going to be a problem even in all endorsed areas. It used to be just Math, Science, and Special Education. It's not. It's everywhere.

As the superintendent struggled to recruit a Physical Education (PE) teacher, a difficult decision was presented; whether to hire a teacher who had been non-renewed or leave the position open with the possibility of it going unfilled. Leaving the position unfilled would risk the possibility of receiving an accreditation violation should the district ultimately be unsuccessful in hiring a qualified candidate. These experiences suggest that few teacher applicants, out-of-state applicants, and low quality applicants are characteristics of these school districts. While general tone and body language of the two superintendents was measured, inflection was higher and voice rose slightly when describing their experience and hinted at their feelings toward the staffing challenges they have endured. These reactions suggest that a sense of frustration is a characteristic common among many of these superintendents with the source of their angst a seeming result of the staffing challenges routinely encountered in these rurally isolated, impoverished eastern Montana school districts. Although a few of these superintendents have utilized creative staffing practices in an attempt to improve the applicant pool, their new teachers still seemed prone to turnover and the continuity of school programs appeared to be deteriorating.

With teacher applicants in short supply, some of these superintendents have resorted to unorthodox approaches to recruit candidates. Even after implementation of such proactive measures, many continue to struggle with turnover. Unable to keep some

positions filled, the continuity of the academic programs experiencing frequent turnover seemed to suffer. In a single story, one focus group superintendent touched on all three of these characteristics:

> What we've been doing is hiring people on Class Fives. Our Counselor, English teacher, and our P.E. teacher all just hold a Bachelor's degree in various different things and we've been paying for their schooling so they can become licensed. Because they're local people, we don't think retention will be an issue. This approach gave us people that we could have a little more control over in terms of the quality of candidates. For the high school English position, we actually took a teacher from our elementary school and paid for her to add the endorsement. We've seen test scores improve drastically since we did that because what we had had previously was a new teacher every year or two years. There was just never anything established as far as a cohesive program within our high school English department.

In the superintendent's account, the reliance on Class Five licenses, need to seek out individuals within the community to fill teacher vacancies, and decision to move an elementary teacher to a high school position speaks to the poor quality of applicants and desperation of these school districts in addressing staffing challenges. A Class Five license can be used for individuals who don't qualify for a standard Montana teacher's license and is a kind of provisional teacher license. According to the Montana OPI, individuals teaching under a Class Five license must complete a professional educator preparation program and satisfy all the requirements for full licensure within a three year provisional period ("Class Five Provisional License," n.d.). To fill positions of need, the superintendent also described paying teachers to add an endorsement, paying for local residents to become teachers, and utilizing provisional licenses to permit them to teach while in the process of completing a teacher preparation program (i.e., Class Five).

These unconventional recruitment measures are kinds of creative staffing practices used to improve the teacher applicant pool available to these districts.

Recurring turnover, as was the case with the superintendent's high school English position, seemed to force students to constantly adapt to the level of experience, instructional style, and expectations of new teachers. Their churn of English teachers "every year or two" appeared to disrupt the continuity of instruction and stymie development of a cohesive academic program. It would seem that building a high quality academic program takes time and if new teachers tend to turnover every few years, the program may never have enough time to fully develop before someone new starts the process all over again. That some of these eastern school districts feel compelled to spend funds to pay for individuals to become teachers or to pay for existing teachers to add endorsements may suggest their staffing crisis is far greater than currently perceived by many. With these experiences in mind, it would appear that creative staffing practices, frequent teacher turnover, and limited school program continuity were characteristics of many of these remote and poor eastern Montana school districts. As the superintendent later discovered, retention of a high quality teacher not only improved cohesion of the high school English program but subsequently improved the student outcomes of those served in the program. With a very fitting analogy, another eastern focus group superintendent reinforced the notion of the potential positive effect of retaining a high quality teacher:

> When you have a good teacher that's been there a while, knows the curriculum, knows the staff…over a period of time, better things are going to happen for students. It's just like a coaching position. If you change coaches every year, your teams don't do so well. But when you retain good

> coaches over a period of time, generally speaking, the teams get better and better. It's the same thing with good teachers in the classroom.

As the superintendent pointed out, high quality teachers can improve the skills of their students just as good coaches can improve the skills of their players. Over time, retention of a good teacher could allow for the creation of a strong and consistent academic program that could foster and sustain positive student outcomes year after year. These stories suggest that the limited school program continuity experienced by many of these remote and poor eastern Montana school districts is a result of the staffing challenges they endure. However, the previous superintendent's success in converting a high quality elementary teacher to an effective high school English teacher indicated that such creative staffing practices may improve both school program cohesion and student achievement in these districts. On a more granular level, it would appear that improving teacher retention could be a step in improving school program continuity and ultimately a step in improving student outcomes in these rurally isolated, impoverished eastern Montana school districts. Unfortunately, their remoteness may prove a difficult teacher staffing barrier to overcome.

One superintendent described the focus group schools as located "off the beaten path" and suggested that being so far away from everything may "play a role" in the low number, out-of-state tendency, and poor quality of teachers that typically applied to their school districts. Furthermore, their lack of quality applicants seemed to compel many of these districts to fill vacant teaching positions with provisionally licensed staff. These experiences suggest that the receipt of few applicants, lower quality applicants, out-of-state teacher applicants, and reliance on provisionally licensed staff may be a result, in

part, of the geographic isolation of these remote and poor eastern Montana school districts. Despite seeming geographic limitations, creative staffing practices would seem to have potential to improve their teacher recruitment and retention efforts.

Whether paying for an elementary teacher to add a high school English endorsement, paying for two capable local residents to become a Counselor and PE teacher, or hiring a promising individual using a provisional license, some of these eastern superintendents' use of creative staffing practices appeared to have given them more control over the quality of their teacher applicant pool. By reducing the need for out-of-town applicants and instead focusing more on the identification and development of local talent, these eastern school districts also appeared to minimize the seemingly unfavorable impact of their remote location on teacher recruitment. These experience suggest that improving the quality of new hires, teacher retention, school program continuity, and student outcomes may be reasons for the application of creative staffing practices in these districts. In addition, minimizing the seeming unattractiveness of their geographic location might also be a reason for implementing creative staffing practices in these remote and poor eastern Montana school districts.

Summary

The culminating themes from these eastern superintendents' experience of staffing challenges include: few and low quality teacher applicants, frequent teacher turnover, limited school program continuity, geographic isolation, creative staffing practices, and frustration with staffing challenges. The general essence drawn from these themes conveyed a message of a growing problem with regard to teacher staffing in many

of these rurally isolated, impoverished eastern Montana school districts. These districts seemed to experience frequent teacher turnover and appeared to have more difficulty recruiting high quality applicants regardless of content area. The few applicants they tended to receive often appeared to be low-quality and their reliance on out-of-state applicants may be a reflection of the dwindling supply of teacher applicants within the state. In addition, their struggle to recruit and retain high quality teachers seemed compelled, in part, by the geographic isolation of their district. For some superintendents, frequent difficulties recruiting and retaining teachers appeared to have limited the continuity of their school programs and further reinforced the need for creative staffing practices. The constraints staffing challenges have placed on these superintendents' ability to build school programs in the manner they desire appeared to have been and seem to continue to be a frustrating proposition.

Experience of the Impact of School Funding Policy

Four primary semantic relationships (attribution, cause effect, means end, and rationale) emerged from typological analysis of the data relating to eastern focus group superintendents' experience of the impact of school funding policy on staffing challenges (see tables 5 and 6 in appendix I and J). From the onset of the discussion, the topic of teacher compensation was very contentious. No sooner had the issue been posed, several hands went up quickly to respond. As one superintendent explained:

> When it comes to housing or any of the other benefits that might be offered along with salary, we just can't compete. When people go to the OPI "jobs for teachers" website and look at these positions available, they gloss right past us because we can't offer what a lot of other schools can offer. The

> money just isn't there. You know, it puts all of the schools that don't have additional funding at a disadvantage.

The superintendent's mention of "additional funding" may refer to special funding (e.g., impact aid, Guaranteed Tax Base (GTB), natural resource tax revenue, etc.) that only qualifying districts or districts in certain geographic locations are eligible to receive. After the story was delivered, nearly all the other superintendents were nodding empathetically. The account not only described the school districts' inability to compete with the teacher salaries offered by other districts but also mentioned a lack of homes in which to house teachers. Such an experience suggests that uncompetitive teacher compensation and limited housing are characteristics of some of these rurally isolated, impoverished eastern Montana school districts. Unfortunately, that was not where the problems stopped for these districts in relation to funding. Another superintendent followed the previous account with a similar experience:

> Truthfully, we've had to combine classes because our human resources cost in the form of teachers has exceeded 94% of our general fund, and yet, at the same time, it's boots on the ground, it's quality teachers in the classroom. It's not something that you want to do, but something that you're forced to do. Of course I'd love to pay teachers, and I've always maintained that I don't believe that they're overpaid. As much as we would love to do better, we all have to live within our means.

In this case, the school district was already close to maxing out the entire budget on teacher compensation and still found it difficult to compete for high quality teachers. They also had to combine classes because they could no longer afford to staff the classes with separate teachers. Typically when classes are combined, two or more grade levels are put together in the same classroom and then staffed with one teacher. The services of the remaining teacher(s) are then no longer needed. As the superintendent suggests, these

situations can be very emotional and difficult for all involved. However, the practice saves the school district money by eliminating the funding necessary for compensating additional teachers. Declining student enrollment in these districts often helps justify the move since the combination of classes usually does not result in high student to teacher ratios. The experience suggests that combining classes was a characteristic of this remote and poor eastern Montana school district and an apparent result of limited funding. While budget deficits that force the combination of classes does not appear to be a pleasant experience, the situation could be much worse. As one superintended shared:

> Year after year people come up short of money. We need this to pass, we need this levy. If it doesn't pass, well we'll make do, and the next year we'll make do. We just keep cutting ourselves short and finding a way to get by rather than just finally saying, and it's tough, but we're going to cut this program or we're going to cut that activity, or there won't be a football team this year. That would really do it! So, we really shoot ourselves in the foot because we've always seemed to find a way to get by. Now we're at a point where there's no way to do it anymore.

The account suggests the school district's constant struggle with funding had finally reached the point of cutting programs and activities. The proposition of cutting school programs or activities is not enjoyable but if funding is insufficient to provide for everything, something has to give. When forced to prioritize programs and activities, ultimately something that people value will fall subject to the chopping block and benefit those things given a higher priority. In situations like these, emotions run high and contention and hurt feelings are unavoidable. The experience suggests that fewer school programs and activities was a characteristic of some of these districts and appeared to be a result of limited funding. Furthermore, the two accounts seemed to indicate that limited funding may be a reason that some of these rurally isolated, impoverished eastern

Montana school districts combine classes or cut school programs and activities. Sensing a competitive disadvantage, the seeming lack of resources necessary to adequately staff their districts appeared to be a point of frustration for many of the superintendents.

When describing the experience of not having enough housing or the means to provide a competitive teacher wage, one superintendent argued that insufficient resources "puts all the schools that don't have additional funding at a disadvantage" when attempting to recruit and/or retain high quality teachers. Additional phrases in the statement like "we just can't compete" and "the money just isn't there" further conveyed a sense of frustration. When uttering the previous phrases, the superintendent's tone was more emphatic than any other point during the discussion. The shift in attitude seemed to indicate that school funding policy is both an important and sensitive issue to these superintendents. To illustrate the consensus on this concern, one superintendent explained:

> We're not getting any help largely from the state. We get a little bit of flexibility, but you know that's just a shell game that confuses the taxpayers and earns their mistrust. The feds aren't helping out with a lot of our exponential costs in the form of Special Education, things that we can't even get ahold of. So, it is very frustrating.

The feeling of frustration with current school funding policy was shared by nearly all of the eastern focus group. As the superintendent described, they felt the state was not fulfilling its constitutional obligation to equitably fund public education and had instead shifted the burden to local tax bases that may not have the property wealth to cover the added cost. Similarly, they felt that the Federal Government had largely left Special Education as an unfunded mandate. Beyond the obvious sentiment conveyed in the "it is

very frustrating" comment, further feelings of consternation were evident from the superintendent's elevated inflection and firm tone when speaking the phrases "shell game" and "confuses the tax payers" as well as the statement "things that we can't even get ahold of" regarding funding for Special Education. The experience suggests that a sense of frustration and disadvantage, with regard to the financial resources necessary to compete in the teacher staffing market, was a characteristic of many the superintendents in these remote and poor eastern Montana school districts with the source of their angst a seeming result of limited funding. Two areas the superintendents reported as most impacted by their districts' financial limitations was teacher wages and housing.

Funding is a critical component in the maintenance and operation of school districts. When budgets are strained, functions of the district are typically effected. One superintendent's response may best describe the financial struggle these districts seemed to face when attempting to recruit and retain strong teachers:

> You can't necessarily pay for what you can't afford, and recruitment and retention…that's human resources…that's our biggest cost. What can you even offer when your budget goes up ½ % this year and 1% the next? We don't have housing, we don't have tuition reimbursement. You know, we're lucky to have the teachers that we have. I understand fully we're underfunded. We're not even competitive with the schools in our direct region, much less when you consider more populous areas of the state. It's really frustrating fully knowing that you need quality people on the ground, and yet you have no means to pay for them, you have no means to recruit them, and you have no means to retain them.

As described in the narrative, human resources was the largest expense for these school districts. The cost not only included teachers but other staff necessary for school operations (e.g., clerks, secretaries, cooks, custodians, teacher's aids, etc.). Even if the half to one percent budget increase referenced in the story above was applied to teacher

compensation in the district, the minute amount would not seem to provide a competitive boost in teacher wages. The net result for these districts appeared to be a perpetual inability to compete for high quality teachers with other school districts that have greater financial means afforded to them by larger student enrollments and greater property wealth. Therefore, uncompetitive teacher compensation seemed to be a result of limited funding in these rurally isolated, impoverished eastern Montana school districts. Teacher wage, however, did not seem to be the only thing in these school districts impacted by a lack of funding.

In the previous account, the superintendent also suggested that "housing" acted as a barrier to teacher recruitment and retention in the district. More specifically, the superintendent drew an association between "housing," teacher compensation, and "tuition reimbursement." Similarly, the superintendent who opined about prospective teachers browsing past their vacancies on the OPI website also described housing as a "benefit that might be offered along with salary." The association seemed to suggest that housing was as important, if not more so, than teacher compensation in the recruitment and retention of high quality teachers. With these experiences in mind, it would seem that the teacher staffing challenges in some of these districts were a result, in part, of limited housing. In addition, these accounts suggest that uncompetitive teacher compensation and limited housing may be reasons that prospective teacher applicants do not apply for vacancies in these rurally isolated, impoverished eastern Montana school districts. Although all the superintendents reported struggles to recruit and retain teachers, one of the districts seemed to fair a little better than the rest.

An interesting anomaly developed during the east focus group. One of the superintendents knew a member of the state "Board of Public Education" and had received a report from that individual on the topic of teacher recruitment and retention in Montana. The superintendent explained that the report outlined "three things that would improve teacher recruitment;" those being "student loan forgiveness, some housing, and a signing bonus or signing incentive." Following the comment, the superintendent added, "We're doing two of those three." At that, the other focus group members smirked. Their response did not appear ill intended but more of a collegial ribbing with a hint of envy. When asked how the school district could provide such benefits when other districts in the focus group could not, the superintendent somewhat begrudgingly shared, "We're fortunate that we receive some oil and gas money. That was a way that we could invest, and hopefully improve recruiting." When asked whether the additional funding had helped, the superintendent responded, "Yeah. We actually had five applicants for a position the year before and they were all pretty good applicants." However, the superintendent was quick to caveat the report by sharing that they were struggling to recruit teachers in the current year despite offering the additional benefits. The superintendent suggested that their lack of applicants could be a result of not advertising the additional benefits well. Despite being a unique case, the experience suggests that offering student loan forgiveness, teacher housing, and/or a signing incentive would seem to be ways to improve teacher recruitment and retention in these remote and poor eastern Montana school districts. Similarly, reducing the staffing challenges experienced by these school districts would seem to be a reason for offering such hiring incentives.

Summary

The culminating themes from these eastern superintendents' experience of the impact of school funding policy on staffing challenges include: uncompetitive teacher compensation, combined classes, loss of school programs and/or activities, limited housing, frustration and a sense of disadvantage, limited funding, and hiring incentives. The general essence drawn from these themes suggests a potential problem with current school funding policy in relation to teacher staffing in these rurally isolated, impoverished eastern Montana school districts. These school districts appeared to lack the funding to provide teacher compensation that was competitive with that of other school districts. Insufficient funding also seemed to have forced some of these school districts to combine classes or cut school programs and/or activities. Limited housing within these school districts was perceived to exacerbate the staffing challenges they experience. The superintendents of these districts appeared to feel frustrated and disadvantaged by their financial inability to recruit and retain high quality teachers for their students. One school district that had additional funding, from oil and gas money, seemed to experience some success recruiting and retaining teachers through the application of hiring incentives such as district owned teacher housing and student loan forgiveness. It is possible that these or similar hiring incentives might decrease staffing challenges within these rurally isolated, impoverished eastern Montana school districts; however, most appeared to lack funding for such initiatives.

East Case Study Superintendent One

Superintendent One was selected from among the four superintendents representing the qualifying school districts in the east focus group. The selection was based on the superintendent's volume and perceived representative nature of responses. Interview questions were based on two of the study's primary objectives, superintendents' experiences of staffing challenges and the impact of school funding policy on teacher recruitment and retention, which can be found in the Table of Specifications in appendix B, the interview protocol in appendix D, and the interview follow-up questions in appendix E. In order to protect the anonymity of the participant, no demographic data that would identify the superintendent or his/her district was collected.

Experience of Staffing Challenges

Four primary semantic relationships (attribution, cause effect, means end, and rationale) emerged from typological analysis of the data relating to the first eastern case study superintendent's experience of staffing challenges (see tables 7 and 8 in appendix K and L). To illustrate the type and number of teacher applicants the school district typically received, the superintendent shared:

> This past year, we had a Business Education position and only got one applicant from out-of-state. The person was moving near our school district to take over a family ranch. The individual could only give us half-time but that was actually great for us because it worked out well with our budget. It also provided an opportunity for our students because that position was not filled the year prior. We had two applicants for an open Music teaching position and we went with an applicant from out-of-state who was a former college student of a well know high school Music director at one of the class

> A schools in eastern Montana. It was through networking with the superintendent of that class A school district that I was able to find this applicant. For our Social Studies position that came open at the end of the school year, we got one applicant. There are many people I know in various rural school districts in Montana that have had ongoing openings that they have reposted and reposted and still have not been able to fill them.

As the story demonstrated, the school district seemed to have a tendency to attract out-of-state applicants. Of three openings, they received and hired two applicants from out-of-state; however, they did not have many other options from which to choose. Combined, they averaged less than two applicants per position. In the example of the Business and Social Studies vacancies, they received one applicant for each opening and hired those individuals. But the staffing challenges the district experienced were not as far reaching as they could be. Just as the type of open position in the narrative hinted, the superintendent revealed:

> On certain aspects, we don't have a retention problem especially in the elementary school. Most of our ladies married into the community and have roots here. They are not going anywhere. Where we struggle more so with retention is at the high school level where you have more diversified content areas. It is a challenge. In small rural districts, we are kind of beating each other up to get the same applicants because no matter what we do, we don't have enough applicants to fill the positions we need.

Confirming the suspicion, the school district experienced more difficulty staffing high school positions, like Social Studies, and specialized content areas, like Music and Business. The experience suggests that the lack of recruitment and retention challenges in the elementary school was likely a result of staffing these teaching positions with individuals who have ties to the community. In fact, the elementary school in the district appeared to be staffed exclusively by ladies whose husbands worked in the area. This notion could further suggest that it may be more difficult for a female spouse of a male

teacher to find work in the community which may prevent some male applicants from applying for open positions in the high school. The fact that the superintendent felt "small rural districts" had to "beat each other up" for the same applicants also speaks to the difficulty teacher recruitment appeared to have become for this and similar school districts. As reflected in the superintendent's accounts, having few teacher applicants for high school vacancies (1-2) and a tendency for teacher applicants to come from out-of-state seemed to be characteristics of this remote and poor eastern Montana school district. The constant churn of new teachers in these districts appeared to compel a need for introductory professional development (PD).

Through PD, new teachers typically learn the school district curriculum, rules and procedures, and any special program or initiative implemented in their school. If PD has to be annually tailored to new teachers, the professional needs of veteran teachers might be somewhat neglected in the process. In many instances, PD builds off prior workshops. This type of training is based on the notion that one must first have foundational knowledge before moving to application of more advanced concepts. If the same workshops are provided each year due to the need to acclimate new teachers, then there may not be as many opportunities to offer PD that builds off prior training because new teachers would lack the foundational knowledge necessary to grasp such material. Speaking on the impact of teacher turnover on PD, the superintendent recounted:

> It does affect your professional development time because we are going to spend a lot of time going over the procedural stuff that somebody that has more experience than an incoming teacher would already know. It is challenging. If you are constantly bringing in new people, your professional development is a little helter-skelter because the new people are not able to pick up and run with the ball in the way other staff members are able.

In the story, the superintendent explained that much of the district PD was spent covering "procedural stuff" that veteran teachers "already know." The superintendent further described their PD as "helter-skelter" due to the gap in experience between new teachers and veterans. The example suggests that staffing challenges not only impact the type of PD offered in the district but also affects program cohesion and/or initiative efficiency by limiting the overall effectiveness of advanced trainings. In other words, the school district may not offer as many progressive, longitudinal PD opportunities as other districts because their new teachers lack the requisite knowledge for such training to be effective. Instead, the district appeared to provide more basal workshops necessary to build new teachers knowledge and "refresh" that of existing staff. Therefore, it would appear that professional development favoring the needs of new teachers was a characteristic of this rurally isolated, impoverished eastern Montana school district. While all school districts must address the balance of training for teachers, the challenge in this district appeared to be exacerbated by the need to constantly bring in new people. The experience suggests that the district's skewing of PD toward the needs of new teachers was a result of the frequent teacher turnover they endured and thus a reason for doing the repetitive training. Unfortunately, the limitations of the district's PD may have also impacted other school related issues.

When teacher turnover is habitual and PD repetitive, overall staff quality could suffer as well as the student outcomes they elicit. Describing the deleterious impact of staffing challenges in the high school, the superintendent shared:

> [Teacher turnover] certainly does play a role, especially if we are doing any collaboration across the content areas. These are all new teammates for these veteran teachers to work with and they have to get brought up to speed. I do think that [new teachers] lack the consistency to bring a student along from someone that knew that student developmentally a year ago and to see where they are at now and the progress he or she has made or to have that experience of being effective in managing disruptive behavior or keeping a student on task or challenging them to excel. How could it not effect [student] outcomes?

As the superintendent's experience revealed, their new teachers often lacked the understanding of school district intricacies that veteran teachers in the district already knew. Collaboration efforts in the district, especially cross content, appeared to be somewhat stymied by the gap between new and returning teachers' familiarity with all things school related. No matter how ready their veteran teachers may have been to move on to more advanced training, they would seem to be unable to progress very far until the new teachers were "brought up to speed" by learning and familiarizing themselves with the curriculum and other school programing. New teachers were also argued to lack knowledge of their students' personalities, strengths, and weaknesses. The superintendent suggested that awareness of these and other student attributes permits a teacher to be more effective at "managing student behavior or keeping a student on task or challenging them to excel." While new teachers often acquire this information over time and develop "consistency," it seemed that they seldom stay with the district long enough for students to reap the benefits of their new understanding and improved practice. To compound matters, this process of new teacher acclimation and induction appeared to cycle back every year or two when the previous new teacher would leave the district and be replaced by yet another new teacher. If some of their school programs

were unable to reach consistency due to a revolving door of new teachers, as the superintendent argued, “How could it not affect [student] outcomes?” Adding a new teacher would then appear to decrease the collective quality of district staff until such time that the new teacher gained a quality understanding of the curriculum, initiatives, and students and parlayed the information into the development of a cohesive academic program. With this experience in mind, it would seem that limited collective teacher quality and suppressed student outcomes were characteristics of the district.

While any school district could argue that new teachers also impact the quality of their staff, the frequent turnover distinctive of this school district seemed to impede them from significantly advancing the collective quality of their teaching staff. Therefore, it would appear that the limited staff quality and suppressed student outcomes of this remote and poor eastern Montana school district were a result of frequent teacher turnover. However, the superintendent was quick to point out that new teachers, especially those that are young, can provide other benefits to the school district:

> On the flipside, these young people that we are bringing in have enthusiasm and are willing to do more than just be a paycheck player where you show up at 8:00 a.m. and leave at 4:00 p.m. and you are not thinking about doing any sort of class sponsorship, extracurricular, coaching, advising or anything like that. It takes a lot of people to make a school run and when you just have veteran staff who have been there and done that and don’t want to give all of their time to the school district because they may have families of their own, you got to have that young blood or you become real stagnant. I think younger teachers coming in realize it takes a lot of hands and you have to be willing to try.

While new teachers need time to develop into effective educators, it appeared that they can provide relief in extracurricular settings by taking on positions no one else will. Important to note, however, that the superintendent’s narrative seemed to convey that the

district mainly attracted new teacher applicants that were younger and single. Although younger and single new teachers may mitigate the problem of hard-to-fill extracurricular positions, the fact the district typically received few applicants for vacancies and had experienced difficulty retaining these new teachers suggests they may continue struggling to improve staff quality.

Another factor that seemed to be characteristic of this school district was a general lack of social appeal and amenities within their surrounding geographic area. As described by the superintendent:

> In small rural communities, we often lack the social interactions some are looking for. Let's face it, people coming out of college may not be comfortable or happy living in a small town where there are limited opportunities for dating, shopping, or having a life away from school.

The superintendent's narrative painted a picture of what it was like to live in the school district's locale. Prospective teachers would find that the population in the district was small and therefore limited the possibilities of romantic relationships and/or friendships. New teachers could also expect to discover that there are few vendors within the district that sell either food or apparel. If a teacher in the district desired more variety of company or merchandise, that individual would likely have to travel to the nearest larger residential area or settle for a virtual experience online. According to the superintendent, school district attributes like these require narrowing teacher recruitment to those individuals that "want to have a genuine Montana experience." In other words, finding people who want to live and work rurally and convincing them that working for the school district would satisfy their desires. From these experiences, few amenities and limited social appeal as well as an emphasis on recruiting teachers that want to live

rurally appeared to be characteristics of this rurally isolated, impoverished eastern Montana school district. While these traits seemed to impact teacher staffing in the district, they appeared to be symptoms of a larger issue concerning geographic location.

Base on the superintendent's narratives, the district seemed to have recently averaged less than two applicants per vacancy for high school core content and specialist positions. Also recounted were conversations with other rural superintendents in the region who described "ongoing openings that they [had] reposted and reposted" and still "[had] not been able to fill them." When considering this experience in conjunction with the district's lack of social opportunities, amenities, and need to recruit teachers that want to live rurally, the collective notion suggests that geographic isolation could be deterring some applicants from applying for vacancies in the school district. If the remoteness of the district contributes to the teacher turnover they experience, it would also appear to influence student outcomes by subjecting students to a revolving door of young and inexperienced educators. These collective experiences suggest that the low number of teacher applicants, limited collective teacher quality, and suppressed student outcomes of this remote and poor eastern Montana school district were a result, in part, of geographic isolation. With several factors seemingly impacting the district's teacher staffing efforts, the superintendent has found some success utilizing a more proactive approach to recruitment.

Since past experience has taught the school district to expect few applicants, a creative approach to teacher recruitment is necessary. According to the superintendent, "You have to be creative. I network with various superintendents in this region plus

former professors at Montana State [University] to try to find possible incoming applicants." Specifically mentioned in this comment is the practice of "networking." Merriam-Webster defines networking as "the cultivation of productive relationships for employment or business" (Networking, n.d.). To aid in the recruitment of teachers, the superintendent has used professional relationships with other eastern superintendents to inquire if they had knowledge of teachers that may be looking for work in a position the district was seeking to fill. The superintendent also suggested that networking had been used with former professors at Montana State University to determine if they had knowledge of soon-to-be teacher graduates that could potentially fill a position of need. In a previous story, the superintendent described successfully utilizing the practice of networking with another regional superintendent to locate and hire a teacher for a hard-to-fill Music position. These experiences suggest that utilization of a creative recruiting practice, like networking with fellow superintendents and professors within the state university system, was both a characteristic and way to recruit teachers to this remote and poor eastern Montana school district. The frequent turnover the district has experienced and receipt of few applicants for open positions would therefore appear to be a reason for doing creative recruiting practices like networking. Although some district characteristics may not be very appealing, there were several that teachers might find compelling.

With a great sense of pride, the superintendent was emphatic when describing the unwavering support of the community for the school district:

> This community stands behind our kids like no other community I've worked in and I've worked in three states including Montana. In Montana,

> I've worked in big class AA schools and small class C schools. From what I've seen out there in my personal experience, this community supports the kids and they support the teachers. Their values very much drive the social mores and norms of the community meaning that they value family, they value education, they value hard work, they value honesty…salt-of-the-earth people and I'm one of those individuals. It's a great place to raise your family. In our case we have pipelines. It doesn't do anything for our budget, but it gives tax relief to the locals so that when you do go to them like we did for a much needed six figure building reserve levy, they were all about it.

With experience that spans three states, the superintendent expressed that the community supported the school district better than any he/she had served in the past. The people appeared to espouse traditional values which included support for students, teachers, and education in general. They also seemed to have shown support not only in words, but also financially by voting to approve a six figure building reserve levy. Such an experience suggests that a supportive community was a characteristic of the school district. In addition to a supportive community, the district also seemed to experience few student behavior issues.

No teacher likes to manage an unruly class of students. Fortunately for the district, they appeared to have had few student disciplinary problems over the years. In a story that illustrated student behavior within the district, the superintendent shared:

> I had one behavioral problem last year. I called home with the student and had the kid explain to their parents what happened. The parent said "thank you." I didn't get cussed out like I used to in other places I've worked; they handled it. We are able to partner with parents to do what's best for their kids and our students.

Having only one behavioral concern for the duration of an entire school year could be music to some teachers' ears. The stress level of the job would most certainly be less than that of a school district with several naughty students. This is not to say that the

district did not experience some minor improper student behaviors like talking when no talking was the expectation, not following directions, and not playing nice with others but major concerns of fighting, drugs, and insubordination appeared virtually nonexistent. Having the support of parents when administering consequences for student misbehavior may be equally enticing for potential teacher applicants. With the superintendent's story in mind, it would seem that few student behavioral issues was a characteristic of the school district. Such a quality is key to maintaining a safe school environment and may be a reflection of the greater community.

While safe schools are not necessarily a predicate of safe communities, the two seem to coincide more often than not. For this district, both the school and community appeared to be safe places. In a story describing the safety of the community, the superintendent shared:

> A lot of the stuff that you have to deal with in more populated areas you don't have to deal with here. I haven't known where my house keys are since I moved in. I don't ever lock my house. We have a drug dog that has come down here for three years now and it has never hit on anything. Not to say that the problems of other societies aren't problems here, but they're really not as bad.

The admission of not needing to lock one's house exemplified a sense of safety through a lack of concern for burglary or home invasion. Losing keys to the house but having no motivation to find them further expressed confidence that no one in the community would steal something from the home. The absence of drugs in the school was also a positive sign of a safe community. Since students typically obtain drugs from an adult family or community member, a lack of drugs in the school may suggest that drugs are not a major problem in the community. However, the superintendent was quick to point

out that the community was not perfect and did experience occasional safety concerns; just not as frequent or as major as in other "more populated areas." The overall experience would seem to suggest that a safe community was a characteristic of the school district. In addition to the attractive characteristics of few student behavior issues and a safe community, the superintendent also argued that the school administration was very supportive of teachers.

As discussed in chapter three, school administration can be an influencing factor in teacher turnover. With apparent understanding that being more supportive may improve teacher retention, the superintendent described the administrative climate in the district:

> You're free to come here and learn and grow as a teacher. I don't expect you to be perfect. You're going to struggle through and you're going to gain vital experience from the opportunity to do what you do and you'll be supported along the way. I know damn well I can't pay these people what they're worth, so I'm darn sure that I don't treat them in a manner that would make them question why they're here. I would say it's about our kids. It's about growing as a professional. It's not about any sort of pecking order, or hierarchy, or anything like that. You do your job for our kids; you are a professional; it begins and ends with that. It's not trying to be a favorite to the superintendent or any of the political stuff and whatnot. In my mind, it's all about what you do for your kids.

According to the superintendent, the administration did not expect teachers to be "experts" when they arrived to the district. In fact, school leadership seemed to anticipate some degree of struggle and had predetermined to provide additional support as teachers became accustomed to their new job. The superintendent also pointed to the district's inability to provide competitive wages as a reason for working with teachers in a way that would not make them second guess their decision to work for their schools. For any

teacher new to the district, it appeared that the school leadership's first priority was to convince them that students were the primary focus of the school and that teachers' professional growth was important to ensure students were successful. In addition, the superintendent expressed that the school administration viewed the teachers as a team with no individual more important than another. The notion conveyed the school leadership's belief that the district's students were best served when teachers work together in an environment free of political hierarchies and individual favoritism. The description suggests that a supportive school administration was a characteristic of the school district. Beyond the attractive characteristics of both the community and school district, the geographic area within and around the district seemed to offer outdoor recreational opportunities that many may also find appealing.

Eastern Montana's abundant public land provides many opportunities for hunting, fishing, cycling, back packing, camping, and more. Much of these leisurely activities seemed to be available in close proximity to the school district or within the general geographic region. Regarding such activities, the superintendent shared:

> We've got tremendous opportunities as far as outdoor recreation and hunting and all the public land that we have here on the east side of the state. You don't have to compete with people here like you do in more populated areas for recreational opportunities. If you want to go hunting you can go talk to a rancher and typically they'll say, "Yeah, have at it."

As the superintendent confirmed, the district boasted opportunities for "outdoor recreation and hunting." While other more populated areas in the state may also offer such activities, the absence of congestion and overcrowding typical in recreational areas near suburban towns and urban cities appeared to be what set the district apart. More

often than not, ranchers within the district were also suggested to accommodate those who seek permission to use their land for recreational purposes like hunting. With these points in mind, the superintendent's narrative would seem to suggest that outdoor recreational opportunities was a characteristic of the school district.

Summary

The culminating themes from east superintendent one's experience of staffing challenges include: teacher turnover primarily in the high school, few new teacher applicants, out-of-state applicants, PD favoring new teachers, limited collective teacher quality, suppressed student outcomes, lack of social appeal and amenities, creative recruiting practice, recruiting teachers that want to live rurally, few student behavioral issues, supportive and safe community, and numerous outdoor recreational opportunities. The general essence drawn from these themes suggest staffing challenges were a major problem in this remote and poor eastern Montana school district. Their struggles with teacher turnover seemed to be concentrated in high school core content and specialist positions while their elementary workforce appeared to remain largely stable due to being staffed with teachers who had ties to the community. The district seemed to receive few applications for open positions, and the one or two they were lucky to get tended to come from out-of-state. Their constant struggle with turnover appeared to compel their professional develop to favor the needs of new teachers. The cyclical nature of the turnover experienced also seemed to hinder collaborative efforts and limit staff quality. Such habitual turnover appeared to stymie the district's development of cohesive academic programs which seemed to continually suppress student outcomes. The lack of

social appeal and amenities in the district was perceived to deter some applicants from considering their open teaching positions. Creative recruiting practices, like networking, have been used by the superintendent to identify and recruit teacher prospects to fill vacancies within the district. In an attempt to improve their teacher retention rate, the superintendent has intentionally searched for applicants who desire to live rurally. Despite its shortcomings, the district seemed to boast many attractive qualities. Students were suggested to be generally well behaved and present few major disciplinary concerns. The community was also claimed to value the work of teachers and was described as a safe place to live. For those that desire nature and adventure, many outdoor recreational opportunities appeared to be available within or near the district's geographic region.

Experience of the Impact of School Funding Policy

Four primary semantic relationships (attribution, cause effect, means end, and rationale) and two secondary (function and strict inclusion) were discovered during typological analysis of the data relating to east superintendent one's experience of the impact of school funding policy on staffing challenges. As before, the secondary relationships provide context while the primary relationships convey the essence of the superintendent's experience (see tables 9 and 10 in appendix M and N).

School districts rely on a combination of federal, state, and local funding in order to maintain facilities and operations. In discussion of the impact of school funding policy on staffing challenges in the district, the superintendent explained:

> In small rural communities, we lack the financial resources to make the compensation package very alluring. Quite honestly, we can't fill the dog-gone extracurricular activities that we have because it's not like we offer [teachers] a huge financial incentive to give up their time.

The experience suggests that the district lacked sufficient funding to make teacher compensation "alluring" to applicants and competitive with wages offered by other districts. The plural word choice of "communities" and geographic distinction of "rural" seemed to convey that the superintendent believed or had some knowledge of similar districts that also struggled financially to keep pace with teacher compensation in non-rural Montana school districts. Extracurricular positions were mentioned as another employment area in which the district lacked the resources to offer a "financial incentive" enticing enough to garner applicants. Therefore, limited teacher compensation seemed to be a characteristic of this rurally isolated, impoverished eastern Montana school district. Teacher wage limitation, however, did not appear to be the only challenging characteristic of the district.

Many rural districts seem to have small and/or declining student enrollment and some appear to compensate by combining classes. Pointing to student enrollment and elaborating on previous comments about combining two classes, the superintendent shared:

> We had a teacher with four kids in her classroom and that doesn't even begin to cover her salary. Even though we are a small school, we have to get past the notion that we need a teacher in every grade level. When you combine a classroom and only have 14 kids, you surely don't need to split them up into two separate classes.

A school with a class of four students and a class of ten students suggests they had low student enrollment and was further reinforced by the description of the district as "small."

The superintendent challenged the idea that a school must have a teacher for each grade level and argued that the low number of students in each class made combining them the most logical decision to meet both the district's instructional and financial needs. With these thoughts in mind, small student enrollment and combined classes seemed to be characteristics of this remote and poor eastern Montana school district. However, while some classes can be combined, the superintendent was quick to point out that others cannot:

> If you have got four kids in an elective class, that is not paying the bills, but you still need a teacher to teach that elective class based upon accreditation standards that are controlled by the state and Board of Public Education. So no matter whether you have 4 kids in that class or 14 kids, you got to have that teacher.

Since elective courses like Art, Music, World Languages, and Career and Tech Education are state required offerings at the high school and junior high level, the district must staff these positions (*Montana School Accreditation*, 2013, p. 32-34). Although the district cannot combine elective courses, a single teacher could instruct multiple electives provided that that teacher was properly licensed in each content area. The superintendent appeared to feel that low student enrollment in these courses did not justify funding the teacher's salary; however, the district seemed to have no choice in the matter because the state mandated that the course be offered and staffed by an appropriately licensed teacher. Important to note that the superintendent did not convey that elective courses were not important, but rather that elective positions were difficult to fund especially when student enrollment was low. Unfortunately, limited teacher compensation, small enrollment, and combined classes were only a few of the problematic characteristics of the district.

Another action the district had utilized to balance instructional and financial obligations was a reduction in force (RIF). RIF is a kind of staffing function used to reduce the number of staff employed by the district. The concept of RIF was brought up by the superintendent in response to a question about teacher wage competitiveness:

> It's not a possibility, we can't even do that. We would have half the staff that we currently have if we were able to pay them at a competitive rate…half the staff! We have had to RIF two teachers just this past year. Well, technically one resigned and we chose not to rehire and the other was riffed because we were at 90% of our general fund in salaries and benefits.

As the experience revealed, the district chose not to rehire after a teacher retired and had to RIF another teacher in order to reduce the total number of staff employed by two educators. The superintendent indicated that the staffing action was taken to allow the district to balance its budget. The story seemed to demonstrate that utilization of the RIF staffing function was a characteristic of this rurally isolated, impoverished eastern Montana school district. Based on their application of combined classes and RIF, the two staff reduction measures would also appear to be ways to meet the financial obligations of the district. Likewise, the implementation of these actions for economic purposes suggests that the district's limited funding could be a reason for doing staff reduction measures.

The superintendent also claimed that in order to pay the district's teachers at a competitive rate, the employment of "half the staff" would have to be terminated. In other words, the district could provide some of its teachers with competitive wages but would have to eliminate other teachers' positions in order to do so. Such an action would seem to upset the balance between the instructional and financial needs of the district due

to the elimination of more teaching positions than the district could fundamentally sustain. However, without competitive salary and benefits, the superintendent perceived that the district would continue to experience staffing challenges. The experience seemed to indicate that the current funding level of the district may not permit them to offer competitive teacher compensation without damaging the instructional program. Therefore, it would appear that the uncompetitive teacher compensation and staffing challenges in this remote and poor eastern Montana school district were a result, in part, of limited funding.

The impact of limited funding on teacher compensation may also compel some applicants to not apply for open positions in the district. As the superintendent explained earlier, they "lack the financial resources to make the compensation package very alluring." The assumption made is that some teacher applicants may pass on applying to the district to pursue higher paying positions in other districts. If this is true, the number and quality of teacher applicants could be siphoned away to districts with superior compensation packages. To emphasize this point, the superintendent expressed:

> We wonder why we have to take what we can get, especially is small rural areas. We can't afford to pay them [teachers] a living wage. We can't afford to recruit the best and brightest because they will not even consider us because who the hell wants to be poor for the rest of their life.

The word choice "take what we can get" implied that the district had to settle for the teacher applicants that were leftover once the higher paying districts had finished filling their positions with "the best and brightest." Reinforcing the superintendent's prior comment about their inability to offer "alluring" compensation, the notion suggests that the district, as well as others in "small rural areas," did not get the same access to

higher quality teachers because they "can't afford to pay them a living wage." Based on the superintendent's experience, uncompetitive teacher compensation may be a reason for some teachers to pass on applying for vacancies in this rurally isolated, impoverished eastern Montana school district. In addition to school related issues like combined classes, RIF, and low teacher wages, the district's community appeared to have a higher cost of living than some might anticipate.

A previous story seemed to reveal that the district's small community offered little in terms of social interaction and amenities. To gain access to more people, goods, and services, it appeared that a teacher in this district would have to travel to a more populated area where opportunities were more abundant. To illustrate the issue, the superintendent shared:

> We don't offer much financially and it's not really that cheap to be here because you are so geographically far removed from shopping and things like that. We are pretty far removed from almost everything. So, that takes recruiting someone who wants to have a genuine Montana experience and not necessarily a slave to the big city or all the bells and whistles that a bigger city or population has to offer.

As indicated by the superintendent, living in the district was not as "cheap" as one might expect because their community was "far removed from almost everything." That would include not only things like certain groceries and apparel but also healthcare specialists and major automobile retailers. Commuting to and from the locations that offer what one needs or desires can be costly. The experience suggests that a higher than expected cost of living was a characteristic of this remote and poor eastern Montana school district.

A limited variety of necessities like "shopping" and social opportunities like "dating" were also specifically mentioned by the superintendent as issues in which

prospective teacher applicants "may not be comfortable." When a higher than expected cost of living is combined with limited social opportunities and amenities, perspective teacher applicants may find it difficult to have "a life away from school" and ultimately be "unhappy" living in the district. The fact that their new teacher applicants also tend to be young and unmarried would not seem a paring conducive to a setting where life mostly revolves around the school. With these realities in mind, it would appear that the high cost of living in this remote and impoverished eastern Montana school district was a result of geographic isolation. While a lack of shopping and social opportunities seemed to increase the cost of living in the district, housing might be the most expensive commodity.

An important issue for any teacher moving to a new district is housing. Just as any other professional, teachers need a home suitable for long term residence. Therefore, it would seem unlikely that poor living conditions would be conducive to teacher retention. Describing the district's housing situation, the superintendent explained:

> Well, I think it's a double-edged sword. One, there's not much [housing], two, it's expensive. That's probably why it's expensive. Three, our rent in this local community still hasn't come down since the Baaken took off believe it or not. You know, there's just not a lot of new construction. For example, we have two of our single teachers that are living in an assisted living facility because it's the cheapest thing they could find.

According to the superintendent, the supply of housing within the district was both limited and "expensive." The high cost of housing was attributed to a general lack of supply and inflated value residual from the "Baaken" boom; a phrase used to describe an increase in North Dakota shale oil production from 2006 to 2012 that had sense subsided ("North Dakota oil boom," n.d.). Six years past the height of the Baaken boom, housing

prices in the district "still" appeared unreasonably expensive. Virtually nonexistent new construction seemed to further contribute to the limited supply of housing and subsequent high price. With this information in mind, it would seem that limited housing was a characteristic of this rurally isolated, impoverished eastern Montana school district. If the quality of housing has an impact on teacher retention, then it is doubtful that staying in an assisted living facility will increase the probability of retention especially for "young" and "single teachers." The experience suggests that the district's struggle with frequent teacher turnover may be a result, in part, of limited housing. With so many factors seemingly not in their favor, the challenge of staffing the district with high quality teachers appeared to be a frustrating proposition for the superintendent.

In a candid discussion about state-wide discrepancies in teacher compensation, the superintendent shared how the current funding formula has impacted the ability to shape the school district:

> I'll be honest with you, we are in negotiations right now that have gone on into mediation. It is not because I don't want to pay these people, it is because the state clearly defines what our budget is largely based on ANB [average number belonging] that is pretty ridged. So you either got kids or you don't. State funding is a joke. This whole past legislative session, they are going to give us .5% of an increase…how the hell is half a percent compared to a double digit insurance increase year in and year out? They know we are not funded adequately and I think, to be honest with you, I think it is by design because they are trying to choke off small schools and force consolidation. It is criminal!

With inflection high and a tone that was serious and direct, the superintendent's sense of frustration was audible when articulating the story. The notion that the school district would never have the financial means to offer its teachers competitive compensation because it simply did not have enough "kids" conveyed both a feeling of disadvantage

and a sense of hopelessness in the probability that the district's struggles with staffing would ever change. With the response in mind, a sense of frustration, hopelessness, and disadvantage, with regard to the finances necessary to provide competitive teacher wages, appeared to be a characteristic of the superintendent and a result of the district's limited funding. Although unintentional, one of the superintendent's responses exposed a potential solution that may improve teacher staffing in the district.

When the district was described as going into "mediation" with the local teachers' union, the superintendent explained that the move was not a result of being averse to paying teachers, but rather that "the state clearly defines" the district's budget primarily "based on ANB." The comment suggests that the superintendent might like to offer the district's teachers a more competitive wage; however, the district's low enrollment appeared to limit their financial means to make such an offer. Alluding to a potential remedy to the district's staffing woes, the superintendent added:

> When you expect an administrator to recruit and keep a good team together and offer them enough [wages] to stay year in and year out and grow with the school and staff, it [Montana school funding policy] is flawed by design and I think they know it and just don't give a damn.

In order to recruit and maintain a high quality teaching staff, the superintendent argued that a district must first "offer them enough to stay year in and year out." The reference to compensation suggests offering a competitive wage could be a way to recruit and retain high quality teachers in this remote and poor eastern Montana school district. With limited funding; however, the district had been unable to increase teacher salary to a competitive rate and has had to use other less attractive staffing measures just to balance their budget. Never-the-less, the superintendent felt that another financial remedy could

improve the district's budget without having to resort to future RIFs or combination of classes.

Since the district had a small enrollment, they appeared to receive less funding from the state than districts with a larger enrollment. As the superintendent opined, "you either got kids or you don't." The distinction drawn is that the haves and have nots are largely determined by the number of students enrolled in a district. To mitigate this perceived flaw, the superintendent suggested:

> I would propose a funding formula that was not strictly based on the numbers. A funding formula that is solely based on average number belonging using a three year average and hoping that you can get by on that if you have a precipitous dip in enrollment in one given year is flawed.

While the superintendent's proposal was light on detail, the notion that a state funding formula less reliant on student enrollment might provide a more equitable share of funding would appear to have some merit based on the vast range of student enrollment in districts throughout the state. Although state funding is not solely based on ANB, OPI described student enrollment as a major component in the complex formula (Mickelson, 2016). Therefore, it would seem that a school funding policy that does not rely so heavily on ANB may be a way to level the playing field by providing this rurally isolated, impoverished eastern Montana school district with the funding necessary to adequately address its staffing challenges. Likewise, if the district is struggling to recruit and retain high quality teachers because they cannot compete with the compensation offered by other districts, then leveling the teacher staffing playing field may be a reason for doing school funding reform.

Summary

The culminating themes from east superintendent one's experience of the impact of school funding policy on staffing challenges include: small student enrollment, limited funding, uncompetitive teacher compensation, staff reduction measures, high cost of living, limited housing, frustration with school funding policy, and a need for school funding reform. The general essence drawn from these themes suggest current state policy may not provide enough funding for this rurally isolated, impoverished eastern Montana school district to equitably compete for the services of high quality teachers. The district's small student enrollment seemed to limited their share of state funding and make it more difficult to maintain budget authority. In order to operate within their shrinking budget, the district appeared to apply staff reduction measures like RIF and combined classes. A higher than expected cost of living, attributed to the additional cost of commuting for goods and services, and limited housing seemed to make it more difficult for the district to recruit and retain high quality teachers. Their apparent lack of funding also appeared to have made it virtually impossible to keep teacher wages competitive with that of larger school districts and was perceived, by the superintendent, to exacerbate the district's staffing challenges. A sense of frustration, hopelessness, and disadvantage with the prospects of building a strong school program through the recruitment and retention of high quality teachers seemed to motivate the superintendent to call for a new school funding policy that did not rely so heavily on student enrollment.

East Case Study Superintendent Two

Superintendent Two was selected from among the four superintendents representing the qualifying school districts in the east focus group. As was the case for Superintendent One, the selection was based on the superintendent's volume and perceived representative nature of responses. Interview questions were based on two of the study's primary objectives, superintendents' experiences of staffing challenges and the impact of school funding policy on teacher recruitment and retention, and can be found in the Table of Specifications in appendix B, the interview protocol in appendix D, and the interview follow-up questions in appendix E. In order to protect the anonymity of the participant, no demographic data that would identify the superintendent or his/her district was collected.

Experience of Staffing Challenges

Two primary semantic relationships (attribution and cause effect) emerged from typological analysis of the data relating to the second eastern case study superintendent's experience of staffing challenges (see tables 11 and 12 in appendix O and P). During discussion of the experience recruiting teachers to the district, the superintendent expressed that they typically "might get anywhere from zero to four" applicants per teacher vacancy. The admission that, on occasion, they have received zero applicants for some open positions speaks to how difficult teacher recruitment could be for the district. Describing what happens when no one applies, the superintendent shared:

> We really scramble until we find somebody to take the position. The last time that happened, we ended up hiring an individual that was less than

> stellar. That is just the way it is. When we interview people and they find out about the limited housing available and how much money we can afford to pay them, they end up turning us down.

The word choice of "scramble" and "take the position" conveyed both a sense of urgency and desperation. After all, someone has to teach the kids. Housing was also described as "limited" and wages suggested to be low. The superintendent was quick to point out that moments of desperation like these have forced the district into hiring "less than stellar" teachers; a phrase suggesting their hires are often of below average quality at best. To reinforce the notion, the superintendent explained:

> I would say teacher turnover and our inability to compete with other schools for the top of the line teachers have definitely created a somewhat negative situation. When it comes to the quality of our instruction, there are some situations where you have to take what you have in terms of the teachers available to you regardless of their quality because it is next to impossible to find somebody to replace that person.

Again, the description of a "negative situation" referred directly to the district's experience of frequent turnover and inability to compete in the recruitment of high quality teachers. The superintendent acknowledged that instructional quality suffered in courses or grade levels where they had high turnover, which suggested the collective quality of the district's teaching staff was limited by the constant churn of "less than stellar" teachers. The phrase, "you have to take what you have," further pointed to potential recruiting inequity among Montana school districts suggesting a haves verses have nots scenario in which remote and poor school districts were left fighting over the scraps of the teacher applicant pool after more affluent districts had finished filling their positions with the cream of the crop. The word choice, "it is next to impossible," reinforced a sense of desperation that seemed to drive the district to hire whatever

teachers were available "regardless of their quality." Such an experience suggests that the acquisition of few and lower quality teacher applicants, frequent teacher turnover, limited housing, and limited collective teacher quality were characteristics of this rurally isolated, impoverished eastern Montana school district. The districts frequent struggle to retain teachers further suggested that their limited staff quality was a result of the recurring turnover they experienced.

The first narrative not only identified housing as a characteristic of the district but also suggested it might be a potential deterrent to applicants. Describing the housing situation in the district, the superintendent explained:

> Housing is something that we've really struggled with when we bring in new teachers. The bulk of what's available are older mobile homes that are…I guess, I consider them pretty substandard. That's really what's available and I think that's one of the reasons that we struggle with retaining a lot of the teachers that we move in. There just isn't something available that they would want to stay in long term.

The superintendent appeared to consider housing "limited" because of the condition of the units available to rent or purchase. Rental prices ranged from "$300 to $500" which was described as, "certainly not dirt cheap, but not cost prohibitive either." While housing seemed to be relatively affordable for teachers and supply sufficient, the fact that available residences were mainly "older mobile homes" may not be attractive to potential applicants. Therefore, the tendency to receive few teacher applicants for vacant positions in this remote and poor Eastern Montana school district appeared to be a result, in part, of limited housing. Another telling district trait may be the type of teacher most prone to turnover.

While the previous narrative illuminated the district's struggle to recruit high quality teachers, retention had also been problematic. Describing the type of teacher that the district typically lost, the superintendent shared:

> You tend to have a lot of turnover, especially in small rural districts, with teachers that are either looking to fill in their last few years before they are eligible for retirement or teachers that are, generally speaking, just transient in nature. Not only does that create mentoring issues with other staff but I think in general, it takes away from the continuity of the programs that you offer.

The experience revealed that some of the district's veteran teachers have tended to leave a few years before retirement. The phrase "looking to fill in" suggests that such a decision may be inspired by the lure of increasing one's retirement benefit by moving to a district that offered better compensation. Additionally, the turnover of teachers that are "transient in nature" seemed to indicate that the district had a tendency to hire teachers who preferred moving from district to district over staying in one place for a long period of time. Important to note that the district did not seem to desire to hire transient teachers but as expressed in the previous narrative, they often had to take what they could get in terms of the applicant pool available to them. Such an experience suggests that being near retirement and/or transient in nature were characteristics of teachers prone to turnover in this rurally isolated, impoverished eastern Montana school district. Unfortunately, the revolving door of lower quality teachers did not appear to be the only blemish of the district.

Mentioned in the superintendent's description of teachers' that were typically lost to turnover were references to teacher mentoring and school program continuity. The district, like many across the state and country, used existing staff to mentor new

teachers. By providing additional support and direction, the goal of mentoring is to help new teachers learn the district's procedures, avoid potential pitfalls, and make what can be a very high stress occupation less overwhelming. However, in a district that experiences frequent turnover, mentoring may not be an easy proposition. When implementing the practice of mentoring with a small teaching staff, the district was limited to choosing amongst the same teachers to be mentors. Teachers that are frequently asked to mentor new teachers thus appeared vulnerable to mentoring burnout. Therefore, the district's struggle to retain teachers had an impact on the effectiveness of their mentor program. The superintendent alluded to this notion when commenting that turnover had created "mentoring issues." As for school program continuity, teacher turnover also seemed to have limited the district's quality of instruction. According to the superintendent:

> When you look at continuity of programs, particularly in the high school, most small rural schools have one teacher teaching each of the core subjects. When you have continual turnover in any of these core positions, you run into a significant problem because there is not any continuity for students from the time they are freshman to the time they are seniors. Students jump around to two or three different teachers with each having a different teaching style. Regardless of the curriculum, these students are not getting the same education each year.

As proposed common in most small rural schools, the district's structure of one teacher per high school core subject appeared to make the continuity of these programs subject to teacher retention. The superintendent suggested that "continual turnover" in these positions disrupted the process of building continuity across grade levels due to the frequent replacement of the teacher responsible for the entire program. Additionally, the superintendent argued that students who must adapt to new expectations with each

change in teacher endured a fractured educational experience that was ultimately of lesser quality than those who were exposed to the same teacher throughout their high school career. With these circumstances in mind, it would appear that mentoring challenges and limited school program continuity were characteristics of this remote and poor eastern Montana school district. As was the case for staff quality, the district's mentoring and school program issues also seemed to be a result of the frequent teacher turnover they experienced. In the eyes of the superintendent, the idea that the district's staffing challenges would ever improve seemed somewhat wishful thinking.

Emanating from an earlier narrative about competing with other districts for "top of the line teachers" was a sense of hopelessness. The superintendent expressed that the inability to compete for the services of these teachers combined with frequent turnover had created "a somewhat negative situation" by forcing the district to take whatever teachers were available to them "regardless of their quality." The word choice of, "you have to" suggested that the district had no other alternative in the selection of its teachers. The notion of having no choice in a matter and that fortunes would not change seemed to convey that the situation was hopeless; the district's prospects of hiring high quality teachers would remain status quo because it simply did not have access to these teachers nor did it appear probable that access would improve in the future. The superintendent reinforced the sense of hopelessness by describing the process of replacing one of the district's high quality teachers as "next to impossible." According to Merriam-Webster, the word "impossible" is defined as: "felt to be incapable of being done, attained, or fulfilled: insuperably difficult" (Impossible, n.d.). Additionally, Merriam-Webster lists

"hopeless" as the first synonym for the word "impossible." The phrase "next to," when used in adverb form, means "very nearly" or "almost" (Next to, n.d.). With this information in mind, the phrase, "next to impossible" could be translated to "almost hopeless." Therefore, a sense of hopelessness in the recruitment and retention of high quality teachers would seem to be a characteristic of the superintendent in this rurally isolated, impoverished eastern Montana school district and a result of the frequent staffing challenges experienced. The superintendent's inability to more effectively address these staffing struggles seemed to cause concern about the impact on future student outcomes.

A largely aging veteran staff was maintained by the district. Like many similar districts, the experienced staff had provided an educational experience in which the vast majority of constituents approved. However, with the reality of retirement on the horizon and struggles to recruit and retain high quality younger replacements, concern about the educational experience of future students loomed large. Describing the district's current production and outlook, the superintendent shared:

> Our achievement, overall, is pretty good. Our ACT performance and standardized testing in lower grades have all been pretty good. There does come a point, however, when you replace teachers that are highly skilled and qualified with people that may not be. That is certainly going to affect student outcomes until that person gains skill over time or until another teacher comes along that is able to facilitate better student outcomes.

While the district's students seemed to have been preforming to expectations, the superintendent acknowledged that recurring staffing challenges threatened future student outcomes. No teacher starts out as an expert which makes their retention all the more important. The district's plan, like any other, was to develop young talent over time so

that they might eventually become high quality teachers. However, if the district continued to struggle to retain new teachers, the reward of new teacher development might not be frequently realized. Therefore, the superintendent's concern about future student outcomes seemed to be the result of frequent teacher staffing challenges experienced in this remote and poor eastern Montana school district. Although the superintendent was concerned about district traits that may deter some prospective applicants, other qualities seemed to have potential to elicit the opposite effect on job seekers.

When describing the attractive qualities of the district, the superintendent shared with a sense of pride:

> We do have some kind of unique aspects to the community. It's a very isolated ranching community. There's a lot of ranch-related activities from brandings to a variety of other things that somebody from some other part of the country might find extremely interesting. There's a lot of paleontology that goes on throughout the summer months with people from Ivy League universities that are here soliciting help from people to come and do these digs. And then of course there's the hunting, fishing, and trapping aspects of most of rural Montana. There's a lot to be had here if those are things that interest you.

The ranches that make up much of the surrounding area that was not public land appeared to drive most of the non-school related activity in the district's community. Opportunities to view or participate in branding, horseback riding, cattle driving, and other ranch related activities also seemed available to those with a predisposition for animal husbandry. The presence of prehistoric fossils within the geographic region and opportunities to participate in professional paleontology digs would appear to set the district apart from most across the country. For those interested in wild game, some of

the state's best "hunting, fishing, and trapping" areas also seemed available in the district's geographic region. With this information in mind, it would seem that ranch related activities, paleontology opportunities, and outdoor recreational activities were characteristics of the school district.

Summary

The culminating themes from east superintendent two's experience of staffing challenges include: few and low quality teacher applicants, frequent teacher turnover, limited housing, teachers near retirement or transient prone to turnover, limited school program continuity, new teacher mentoring challenges, concern for future student outcomes, and a sense of hopelessness with regard to teacher staffing. The general essence drawn from these themes suggest staffing challenges were a major problem in this remote and poor eastern Montana school district. A tendency to receive few and lower quality teacher applicants seemed to have become increasingly more common for the district. Teacher turnover also appeared to have increased with the churn of new, less effective teachers as well as those teachers near retirement or transient in nature. Although the supply of housing within the district seemed sufficient to meet demand and the cost affordable, the unsatisfactory condition of the residences available for purchase or rent appeared to exacerbate the district's staffing challenges. The experience of recurring turnover seemed to have limited the continuity of some school programs in the district by preventing the development of instructional consistency from one grade level to the next. New teacher mentoring also appeared to have become more problematic as mentors drawn from the small pool of current teachers within the district were used and

reused to the point of exhaustion. The continuing experience of frequent teacher turnover also seemed to have caused the superintendent some concern for future student outcomes as the prospects of improving teacher recruitment and retention appeared hopeless. However, the district did seem to have several qualities that potential hires may find enticing. Many ranch related activities appeared to offer the experience of real cowboys and cowgirls. The chance to dig for dinosaur remains alongside Ivy League scholars could fulfill a childhood dream for some and cross and item off the bucket list for others. World class outdoor recreational activities also appeared abundant within the district's geographic region.

Experience of the Impact of School Funding Policy

Four primary semantic relationships (attribution, cause effect, means end, and rationale) were discovered during typological analysis of the data relating to east superintendent two's experience of the impact of school funding policy on staffing challenges (see tables 13 and 14 in appendix Q and R). While discussing what was described as the district's most difficult issue, the superintendent shared:

> I think our biggest challenge is competing financially with not only the larger districts in Montana but also with neighboring states. That is the real problem that we have. As soon as they hear what our base pay is and the fact that we only allow five years of previous experience to apply toward their position on the pay scale, the bulk of applicants go and look elsewhere.

The superintendent expressed that many of the district's applicants had turned down job offers and looked "elsewhere" due to their inability to compete with the compensation offered by other districts. Border States that offered higher teacher wages were also argued to lure away potential applicants. Not only was the district's base teacher pay

described as uncompetitive but the cap placed on the number of prior years of teaching experience allowed toward placement on the pay scale was further evidence of the district's financial limitations. The constraint on transferable experience could deter more experienced teachers from applying for open positions in the district and confine their hiring options to only new and less experienced teachers. Likewise, an uncompetitive base salary may make retention of young talent all the more difficult especially when more lucrative positions open in other districts or other states. The experience suggests that uncompetitive teacher compensation and limited allowance of prior experience toward placement on the pay scale were characteristics of this rurally isolated, impoverished eastern Montana school district. While wages may not be the only factor in teachers' employment decisions, the superintendent believed it was a crucial issue:

> I think, when you look at our small communities, we do have a lot to offer in terms of quality of life. However a lot of times, that is not what someone is looking for. If they are, the fact that they will make $8,000 to $10,000 less than they could working somewhere else often overshadows any possible benefit that smaller communities might have to offer.

An argument was made that the district's small community had much to offer in terms of the lifestyle it could provide. Unfortunately, the experience of receiving few applicants and being turned down by some that did apply suggested that lifestyle may not be as influential as compensation. Such a notion suggests that while money may not buy happiness, it does pay the bills. With this idea in mind, it would appear that uncompetitive teacher compensation may be a reason some teachers decide not to apply or turn down positions within this remote and poor eastern Montana school district.

Since school financing determines degree of compensation, it would seem that the district's low wages and pay scale restrictions were a result of limited funding. Similarly, because the compensation offered by the district seemed to deter some individuals from applying for or accepting an offer of employment, their low number applicants appeared to be a result, in part, of uncompetitive teacher compensation. If uncompetitive wages restricts their access to high quality teachers, then it would also appear that district's staffing challenges may be a result, in part, of limited funding. To improve teacher recruitment and retention, it would seem that attractive wages may entice teachers that might not otherwise apply to the district as well as those that may turn down a job offer for better compensation elsewhere. With this idea in mind, it would seem that competitive teacher compensation may be a way to improve teacher staffing in this rurally isolated, impoverished eastern Montana school district. One source of their financial constraints could be associated with student enrollment.

Declining student enrollment can present a myriad of challenges for school districts. In Montana, the link between student enrollment and school funding makes the issue all the more serious. Describing their trend in student enrollment, the superintendent explained:

> Current school funding is tied to enrollment, or ANB, and almost all of us, in rural schools, are looking at falling enrollment. It is really problematic in allowing us to compete for those excellent teachers across the state. We are basically out of the running from the start unless there is a community tie of some sort.

Enrollment in the district, and similar rural schools, was argued to exhibit a pattern of decline. The experience suggests that declining student enrollment was a characteristic

of this rurally isolated, impoverished eastern Montana school district. Since the district's portion of state funding essentially mirrored their student enrollment, a drop in enrollment would appear to decrease the state's funding contribution to the district. Therefore, the limited funding in this remote and poor eastern Montana school district appeared to be a result, in part, of declining enrollment. The challenges presented by these issues also seemed to stress the role of the superintendent.

When describing how teacher applicants react to the district's low wages, the superintendent explained that the district was "basically out of the running from the start" and that "the bulk of applicants go and look elsewhere." The experience of applicants turning down job offers due to compensation conveyed a sense of frustration, disadvantage, and hopelessness; frustration with continual rejection, disadvantage by the inability to compete, and hopeless that fortunes would improve. Similar sentiment was echoed in the superintendent's narrative about declining student enrollment which was described as a "really problematic" issue hampering the district's ability to compete for "those excellent teachers across the state." Although tone and inflection of voice did not waver during discussion, the syntax used by the superintendent revealed an emotional response to the impact of funding on teacher staffing in the district. The angst was possibly best conveyed through the superintendent's remarks regarding the 2017 legislature's revamping of public school funding:

> There was some money shifted around. The school block grant disappeared but we received money in other areas that made up for the bulk of the lost block grant. We are still a little short but not as short as we would have been. The whole thing was really just smoke and mirrors so one party can say they did this and another party can say they did that. In reality, they really didn't address anything of any significance. I don't necessarily know

> that our legislature really addresses these issues very fully or succinctly when they come up. I think they just give a little bit of lip service and hope it goes away for a few years.

The word choice used to describe the legislature's funding policy reform revealed a sense of hopelessness that the district's funding would ever improve enough to adequately address their staffing challenges. Therefore, it would seem that a sense of frustration, hopelessness, and disadvantage in the recruitment and retention of high quality teachers were characteristics of the superintendent and a result of the limited funding in this rurally isolated, impoverished eastern Montana school district. If the district's uncompetitive teacher wages are a result of limited funding, then leveling the teacher staffing playing field may be a reason for doing school funding reform.

To criticize current school funding policy and not offer potential solutions may do little to advance discussion on the topic. While the superintendent felt the current funding formula relied too heavily on student enrollment, a state salary schedule was offered as a possible solution:

> I think a great start would be a statewide salary schedule. That would level the playing field from school to school and let our communities compete for teachers based on the merit of the community and the school and not simply on our ability to come up with the money to pay our teachers.

The superintendent argued that a statewide salary schedule would essentially equalize teacher compensation regardless of where a teacher chose to work in the state. Staffing competition would then seem to be driven by the attractiveness of the school and community, which the superintendent felt might improve the odds of employing high quality teachers. If all else equal, in theory, the distribution of high quality teachers would then be more diverse across the state. According to this notion, a school funding

policy less reliant on student enrollment, like a statewide salary schedule, may be a way to level the teacher staffing playing field. With funding already a contentious issue among legislators, a plan to pay for a statewide salary schedule would be necessary.

Since school funding is just one of many charges of the state, extra money can be hard to acquire. Typically when additional funding is granted, it is shifted from another state responsibility. Budget shortfalls seem to result in diminished funding all around with some occasionally shouldering more of the brunt that others. New revenue sources may be required before a sincere discussion on an equalization measure, like a statewide salary schedule, ever takes place. With this idea in mind, the superintendent shared:

> There is a wide variety of areas that could produce a great deal of revenue that many within the state would prefer be left alone. We have the largest recoverable coal resources in the country and we are shutting down coal fired power plants at the same time we are cutting budgets. Another big issue is that permitting in the oil fields in Montana is so difficult that the bulk of the drilling is taking place on the North Dakota side of the boarder. We make it difficult to develop our economy outside of tourism. We stand in the way of the development of our oil, nature gas, coal, timber, and so on and so forth. I think common sense is not necessarily being used. Our economy can't function on just taxing the citizens and being a recreational driven economy. There has to be more to it than that and the development of our economy has to happen before any of this can really be addressed. Otherwise it is all just pipedreams and all of us wishing we had more money in our schools.

The superintendent argued that the state's natural resources are a potential untapped source of revenue. North Dakota's use of its natural resources was cited as an example for Montana to consider. It is no secret that the taxes accessed on the development of North Dakota natural resources have made their school districts much wealthier than those in Montana and provided for teacher salaries that are much higher. Partisan squabbles were suggested to be the primary barrier preventing productive discussion on

the revenue possibilities these resources may present. Never-the-less, it would seem that expanded natural resource development might be a way to fund an equalization measure like a statewide teacher salary schedule. As the superintendent described, however, the reality of any new funding for Montana public schools may literally and figuratively be a "pipedream."

Summary

The culminating themes from east superintendent two's experience of the impact of school funding policy on staffing challenges include: small and declining student enrollment, limited funding, uncompetitive teacher compensation, few teacher applicants, frustration with school funding, and a need for school funding policy reform. The general essence drawn from these themes suggest current state policy may not provide enough funding for this rurally isolated, impoverished eastern Montana school district to equitably compete for the services of high quality teachers. Their small and declining student enrollment seemed to reduce the amount of funding the district received from the state and shift the burden of compensating for lost revenue to local tax payers. Diminished funding also appeared to have prevented the district from maintaining competitive teacher wages which may contribute to their low number of applicants as well as their high frequency of rejected employment offers. With the exception of those that have a tie to the community, the impact of limited funding on wage competitiveness may also affect district staffing by making it more difficult to retain new teachers. Maintaining a high quality staff seemed to have become increasingly frustrating for the superintendent who appeared hopeless that the district's financial disadvantage would

ever improve to enough to adequately address their staffing needs. The superintendent suggested that a more equalized funding policy might level the staffing playing field. Using North Dakota as an example, the superintendent proposed that the state consider expanding natural resource development and apply the tax revenue generated toward funding a state teacher salary schedule.

East Summary

Common themes regarding the experience of staffing challenges among both the east focus group and east case studies include: few and typically lower quality teacher applicants, frequent teacher turnover, limited academic program cohesion or continuity, limited staff quality, geographic isolation, creative staffing or recruiting practices, and unique communities that offer abundant outdoor recreational opportunities. The general essence drawn from these themes suggest staffing challenges were a significant problem in these rurally isolated, impoverished eastern Montana school districts and especially those that did not have access to oil and gas tax revenue. These districts often seemed to receive fewer, approximately 0-4, and lower quality teacher applicants than in years past. Unless there was a community tie of some sort, turnover of newly hired teachers appeared to have become a recurrent experience especially in high school core content and specialist positions. The frequent churn of new teachers seemed to have hindered their development of cohesive academic programs and limited the quality of their staff. The geographic isolation of these districts appeared to restrict friendship and/or romantic opportunities and increase the cost of living due to additional travel necessary to secure

some essential goods and services. Creative staffing and/or recruiting practices, like networking or hiring local talent using a provisional license, seemed to help these districts address some of their teacher staffing needs. While each district's community offered an individually unique lifestyle, all appeared to provide a teacher supportive school climate, an atmosphere much different than the hustle and bustle of more suburban and urban areas, and some of the finest outdoor recreational activities in the country.

Concerning the experience of school funding policy's impact on staffing challenges, the focus group and case study districts' shared themes include: small and often declining student enrollment, limited funding, uncompetitive teacher compensation, limited housing, a sense of frustration with school funding, and a need for funding policy reform. The general essence drawn from these themes suggests current state policy may not provide enough funding for the majority of participating remote and poor eastern Montana school districts to equitably compete for the services of high quality teachers. All the districts seemed to have small and/or declining student enrollments that appeared to reduce their portion of school funding provided by the state. Unless the district had additional revenue generated from taxes accessed on oil and gas production, school funding seemed generally limited. Funding limitations resulting from a reduction in state aid appeared to restrict teacher wage growth in most of these districts and may contribute to their inability to recruit and/or retain high quality teachers. In addition to uncompetitive compensation, limited housing options may further impact many of these districts' staffing challenges. The struggle to compete for the services of high quality teachers seemed to have frustrated most of the districts' superintendent who felt

disadvantaged by current funding policy and hopeless that their district's fortunes would ever improve. The majority of these superintendents argued that a school funding policy less reliant on student enrollment and a universal teacher salary schedule was needed to level the teacher staffing playing field.

West Focus Group

Four qualifying superintendents participated in the western MASS focus group. Like those in the east focus group, these superintendents qualified for participation by representing school districts that were designated by US Census standards as rural – remote, a geographic location 25 miles away from a city of at least 50,000 people and 10 miles from a town of at least 2,500, and had at least one or more high poverty schools (i.e., a school with 40% or more students qualifying for free or reduced school meals). While non-qualifying superintendents also participated, only data collected from the four qualifying superintendents were included in the findings. The same three questions posed to the eastern focus group were also utilized during the western focus group: one pertaining to superintendents' general experience of staffing challenges in their school district, one about the impact of staffing challenges on student outcomes in their school district, and one regarding the impact of school funding policy on staffing challenges in their school district. These questions can be found in the Table of Specifications in appendix A and in the focus group protocol in appendix C. In order to protect the anonymity of participants, no demographic data that would identify the superintendents or their district was collected.

Experience of Staffing Challenges

Four primary semantic relationships (attribution, cause effect, means end, and rationale) and two secondary (function and strict inclusion) emerged from typological analysis of the data relating to Western focus group superintendents' experience of staffing challenges. As before, the secondary relationships provide context while the primary relationships convey the essence of the experience according to participants (see tables 15 and 16 in appendix S and T).

The consensus among the qualifying superintendents was that their number of new teacher applicants had been declining. The situation seemed to have become so desperate that two of the four districts had been forced to hire retired teachers. Describing their shrinking applicant pool and reliance on retired teachers, one superintendent shared:

> We have three teachers that we have rehired out of retirement to fill positions that we can't find other teachers to fill even after advertising for many months. I think that provides some interesting challenges for our district and our students. I think it's not always the best thing. Yes, it comes with experience, but it also comes with teachers who are tired. They want to be retired, so they take time off regardless without any thought about how it might affect the classroom.

The superintendent attributed the need to hire retired teachers on the district's lack of applicants for vacant teaching positions. While not specifically mentioned, the notion that the district could not "find other teachers…even after advertising for many months" suggested their total number of applicants for each of the three open positions was zero. Receiving no applicants for three distinct positions would seem to expose a particularly dire staffing crisis. As the superintendent pointed out, hiring retired teachers can be a

good stop gap until finding working age replacements. However, an argument was also made that retired teachers may not provide the quality of instruction that typically coincides with vast experience due to their desire for time off. The superintendent suggested that retired teachers sometimes appeared "tired" and would often "take time off" without giving much thought about how their absence might impact their students. It was as if the retirees might have felt that they were doing the district a favor by filling an interim position, so their best effort should not be expected. If retired teachers really do not want to come out of retirement, then they may not approach the position with the same energy and enthusiasm as they did when they were of working age. With this experience in mind, it would seem that few teacher applicants and hiring retired teachers to fill vacant positions were characteristics of some of these remote and poor western Montana school districts. On top of resorting to hiring retired teachers, some also appeared to have used an emergency license to fill teaching positions.

When school districts do not receive qualified applicants for a vacant teaching position and cannot find anyone willing to undertake additional college coursework necessary to add an endorsement, an emergency license can provide a temporary solution. According to the Administrative Rules of Montana (ARM), a school district administrator may request a one year emergency authorization of employment from the state superintendent of public instruction when the petitioning district has "exhausted all possibilities for hiring a licensed teacher" (Emergency Authorization of Employment, 2016). Therefore, an emergency license is a kind of teacher license that can be used to hire a traditionally nonqualified individual that has meet the minimum state requirements

for working with children in a public school setting. Describing an experience when a request for an emergency license had to be applied, one superintendent shared:

> We had a late resignation for a special education teacher, and we were unable to fill that position. There is a shortage of special education teachers so we had to be creative. So, we contacted OPI to get an emergency provision to hire a retired individual for that position. I'm not sure if that's actually going to work out for us so we might be in a bind again.

In this case, the superintendent seemed left with no other option but to apply for an emergency license because no qualified applicants showed interest in the position. Similar to the previous superintendent's story, the district also had to rely on a retired teacher to attempt to fill the vacancy. Such an experience suggests that application for an emergency teacher license was a characteristic of some of these rurally isolated, impoverished western Montana school districts. Since the stories of these superintendents' would seem to indicate they were compelled to hire retired teachers with an emergency license, it would appear that their reliance on retired teachers and dependence on emergency licenses were a result of their inability to attract certified teacher applicants. In addition to the recruiting challenge, many of these districts had also lost teachers to competitors.

Recruiting high quality teachers to rural Montana districts can be a challenge in and of itself. The time and emotional investment applied during the recruiting process can make the loss of a teacher to another district all the more difficult to endure. One of the superintendents described such an act as "poaching." Merriam-Webster defines the term poach as, "to attract (someone, such as an employee or customer) away from a competitor" (Poach, n.d.). From the prospective of the district losing teachers, the

definition could imply a negative connotation by suggesting that the competing district stole someone away from them. Two of the four superintendents shared stories of a teacher being hired away to another district. Possibly summing up the experience best, one shared:

> I have had teachers taken from the district. Most times, the other district offers a higher salary and a better schedule. Also, a lot of our teachers travel from other towns. They tend to get picked up by schools more local to where they live.

The story described the loss of teachers to competing districts that appeared to offer incentives that the district could not provide. With this experience in mind, it would seem that losing teachers to other school districts was a characteristic of some of these remote and poor western Montana school districts. The narrative also suggested that a less desirable geographic location may be another trait of these districts.

According to the experience above, the district lost some of their teachers to other districts that were "more local to where they live." The fact that these teachers did not live within district boundaries and transferred to school districts near their residence suggests that the district may have a less desirable geographic location in comparison to other locales. Another superintendent echoed this sentiment detailing the loss of teachers to a school district "more proximal to Missoula." The hemorrhage of teachers to the other district would seem to covey that some teachers, especially "new educational talent," preferred to work in a geographic location closer to the city. Therefore, it would appear that a less desirable geographic location was a characteristic of these rurally isolated, impoverished western Montana school districts. Their teachers' decision to live outside the school district or to move closer to the city also seemed to indicate that these

districts' staffing challenges, especially those involving new and young educators, could be a result, in part, of their location. Needless to say, addressing the teacher recruitment and retention struggles of these districts may require an outside the box approach.

Teacher recruitment, especially in small rural Montana districts, does not seem an easy task for one individual to undertake. The chore often appears to be left up to the superintendent and principal(s) assuming the district is lucky enough to have a principal to help. If the work is challenging to do alone, it would seem logical to solicit others to join in the effort. That is what one superintendent, albeit indirectly, had done in his/her district. Describing a somewhat unconventional teacher recruiting process, the superintendent shared:

> We've had some of our greatest recruitment efforts here coming from our young first and second year teachers. They recognize that we have a good culture and a good climate, and what I think is a strong administrative team. Then they turn around and let their buddies, which are right out of college or finishing college, know about the good things we are doing. We've actually hired three teachers over the last three years that way.

Although unintended, the good impression of the school district seemed to have inspired their newer teachers to recruit friends, who were also new or soon to be teachers, to the district. Therefore, using new teachers to recruit their teacher friends seemed to be a kind of creative staffing practice. In addition to help of new teachers, other more established teachers might also be able to contribute to district staffing efforts.

Occasionally, more experienced teachers feel the need to switch to a new grade level or subject area. While the situation may perplex some administrators, others might view it as an opportunity. Explaining an approach to fill teaching positions vacated by impending retirements, a superintendent shared:

> I've had some recruitment efforts here that we've actually started working on two or three years prior to the need if that makes sense. Not that we pre-disclosed it or predetermined it, but we knew of viable candidates. We work on it ahead of time with the knowledge that a teacher is going to retire. What we've done is convert teachers, you know, a kind of a grow-your-own approach. For example, our Family and Consumer Sciences teacher is finishing up coursework for the endorsement this year. She was an elementary teacher for us before and wanted to reinvent herself. Since we knew she wanted to convert two years prior to the old teacher retiring, we had her start working on the coursework. We helped her get signed up for college classes and helped with the paperwork. Although we don't pay for anything financially, we try to make the process smoother.

In this case, the superintendent used an established teacher's desire to change assignment to plan for a coming retirement. As implied, the approach did not guarantee that the converted teacher would get the position but it did ensure that there would be a least one qualified candidate. In any event, having teachers with multiple endorsements in a rural school can provide much needed staffing flexibility. With this idea in mind, planning in advance to use existing staff to fill positions vacated by retirement would seem to be a kind of creative staffing practice. Application of both new teachers as recruiters and converted staff to fill open positions suggests that creative staffing practices was a characteristic of some of these rurally isolated, impoverished western Montana school districts. The experiences further indicate that these creative staffing practices may be ways to both recruit teachers and fill positions of need within these districts. Their history of recruiting woes and limited teacher applicant pool would therefore appear to be a reason for utilizing such unorthodox staffing measures.

Summary

The culminating themes from these western superintendents' experience of staffing challenges include: few teacher applicants, reliance on retired teachers and emergency licenses to fill positions, loss of teachers to other districts, and creative staffing practices. The general essence drawn from these themes conveyed a message of a growing problem with regard to teacher staffing in most of these rurally isolated, impoverished western Montana school districts. All of these districts seemed to receive few teacher applicants and some appeared to rely heavily on retired teachers, emergency licenses, or both to fill teacher staffing needs. Most reported that they had lost teachers to other competing school districts that either offered better compensation or were closer to the town in which the teacher lived. Due to their limited teacher applicant pools, some of these districts had applied creative staffing practices, like using new teachers as recruiters or converting existing teachers to other subjects or grade levels, to help fill vacant positions.

Experience of the Impact of School Funding Policy

Four primary semantic relationships (attribution, cause effect, means end, and rationale) and two secondary (function and strict inclusion) emerged from typological analysis of the data relating to western focus group superintendents' experience of the impact of school funding policy on staffing challenges (see tables 17 and 18 in appendix U and V).

Property taxes fund much of the local portion of school funding in Montana. If a school district's budget is below the max allowable by law, they can make up the

difference in revenue by petitioning local residents to raise the mill rate on their property. A mill is a kind of measurement unit that is used in the calculation of property taxes. According to Investopedia, "one mill is equal to $1 in property tax which is levied per every $1,000 of a property's determined taxable value" (Kagen, 2018). A property's taxable value is also used to calculate property taxes and is reflective of a property's "reasonable market value" as established by tax accessors who base their decision on "local real estate market conditions" (Seabury, 2019). So if a school district asks residents permission to raise the mill rate, they are requesting to increase "the amount of tax payable per dollar of the assessed value of a property" (Kagen, 2018). Because operational levies are not permissive in Montana, districts seeking to compensate for lost revenue must put the levy to a vote of its local citizens. This funding structure can become problematic when local tax bases are limited by poverty. All the superintendents described their districts as having low taxable values and high mill rates that limit the tax base. Explaining the challenge of passing an operational levy, one superintendent shared:

> This year our mills automatically increased as a result of funding changes made by the legislature but, at the same time, some taxable value dropped so it kind of averaged out here. Passing a levy here, if you could, you know the county didn't even pass the 6-mil levy for Higher Ed. It failed like 2-1. I'm guessing they probably didn't even know what it was. They just saw "6 mil school bullshit" not realizing it's been here for 70 years. My business manager pointed that out to me and I'm like, "Oh my God." So, we haven't passed an operational levy here in 10-12 years. We've just quit trying because it's a waste of time and energy because they were failing so badly.

Although the district's mill rate rose as a result of legislative changes to the structure of school funding, a decrease of property taxable value within the district brought local property taxes back down. However, the superintendent was quick to point out that

operational levies had a track record of not only failing within the district but in the larger county as well. The lack of success in levy passage, low taxable value, and high mill rates suggest that a limited tax base was a characteristic of these rurally isolated, impoverished western Montana school districts. While these districts appeared to struggle with poor communities, teacher compensation was also an area of financial concern.

As indicated above, low taxable values drive down the local revenue that school districts rely upon and are typically a reflection of an impoverished tax base. Lower property values can also be an indication of high concentrations of public land, dilapidated property, or both within school district boundaries. To make up the revenue lost to declining property values, school districts can attempt to raise the mill rate by way of voted levy. When levies to increase the mill rate fail, school districts lose budget authority and must manage operations within a reduced budget. A shrinking budget can make teacher wage increases difficult if not impossible. As wage disparity grows between school districts, recruiting and retaining high quality teachers may become more challenging. Explaining how low property taxable value had impacted staffing in the school district, one superintendent shared:

> Our school district has one of the lowest property values in the state based on the sheer amount of land that is owned by both the state and federal governments. We also have a very difficult time in competing for new educational talent as we live close to a popular feeder school that has a higher base wage and is more proximal to the city.

As implied, a low "property value" can limit local revenue if residents are unwilling and/or unable to support a levy to increase the mill rate. In this case, the absence of local

revenue appeared to have contributed to the district's inability to maintain teacher wages at a level competitive with nearby districts and made staffing more challenging. The experience not only suggests that uncompetitive teacher compensation was a characteristic of these remote and poor western Montana school districts, but that their seemingly limited financial capacity may be a result of an impoverished tax base. If these districts were unable to maintain competitive teacher wages due to fiscal limitations borne of local poverty, then the staffing challenges they experienced would seem to be a result, in part, of limited funding. Further complicating matters, housing within all of these districts had also been problematic.

Housing may not be considered a top priority for many teachers due to its typical abundance but for those who work in rural Montana school districts, finding a place to call home can be a challenge. All the superintendents expressed frustration with the housing situations in their districts. Summing up the housing conditions in these districts best, one superintendent shared:

> The housing market to purchase seems almost unrealistic for a typical middle-income person. It's very overpriced. We're being doubled-up by retirees. The rental market is abysmal and my teachers can't afford it. Right now, I've got first-year teachers coming in here and their rent is $750-900 a month. That's just unrealistic! What they're doing is they're partnering up. They're renting a house or we have other teachers that are letting them live in their basements but housing is a terrible, terrible problem here.

Housing in the district was argued not only to be "overpriced" but also limited in supply due to retirees purchasing much of the available units. As suggested, new teacher wages in the district were not sufficient to afford a monthly rent of "$750-$900." The superintendent described many new teachers sharing a rental and splitting the cost while

others rented basement apartments from more established teachers. Although sharing housing or living in someone's basement may be a temporary solution, it is highly unlikely that teachers would consider such conditions acceptable long term. Therefore, it would appear that limited housing was not only a characteristic of these rurally isolated, impoverished western Montana school districts but also seemed to be a catalyst, in part, of the staffing challenges they experienced. The totality of limited local financial capacity, uncompetitive teacher compensation, and limited housing appeared to have frustrated these superintendents who seemed hopeless that they would ever have enough funding to sufficiently address their staffing challenges.

As expressed in the earlier story about failing to pass levies, the superintendent's admission that they had "quit trying" suggested that the district had given up on the idea of turning to local tax payers to compensate for lost revenue. The concept of giving up or no longer attempting to try is a common human reaction when something appears hopeless. In describing the perception of local voters in regards to the higher education levy, the word choice of the phrase "6 mill school bullshit" and response of "Oh my God" conveyed a sense of frustration in residents' financial understanding and support of education in general as well as in the funding policy that has placed so much of the burden on them. Although voice level never changed, the superintendent's tone altered slightly to add intentional emphasis when making both remarks. While the other superintendents indicated that they had not given up on the idea, all admitted that recent attempts to pass operational levies failed and they were not overly optimistic about future efforts. In a similar narrative, another superintendent argued that the district was having

"a very difficult time in competing for new educational talent" because a nearby district offered a better location and higher wages. The difference in location and compensation suggests that the district may be at a competitive disadvantage in regard to teacher staffing. With these experiences in mind, it would seem that a sense of frustration, hopelessness, and disadvantage in the recruitment and retention of high quality teachers were characteristics of these superintendents and a result of limited funding in their remote and poor western Montana school district. Driven by their consternation with the lack of resources with which to address their teacher staffing challenges, some of these superintendents recommended changes to school funding policy.

One superintendent's experience of failing to be competitive in the teacher market with a neighboring district that offered higher wages suggested that compensation was a major factor in some teachers' employment decisions. If the rate of wages can influence where a teacher chooses to work, it would seem that offering competitive compensation would be a way to recruit and retain high quality teachers. Describing successful school funding structures in other states, another superintendent shared:

> My administrative career started in another state, and they had similar problems to Montana with the salaries being all over the board depending on where you were located. Lots of rural districts there as well. One of the things they went to about ten years ago was to have a universal salary that's tied to licensure so that any teacher coming into the profession or any teacher in the profession knew that there were base minimums that they were going to make no matter where they went to teach. That really equalized the playing field. It allowed rural schools to compete. Schools could always pay more, but there was always a minimum and it was tied to licensure. I don't know how to move towards that here in Montana, but it's something at least to consider that there are other models that other states are using to deal with the same issue that we have.

The superintendent argued that a state salary schedule had leveled the teacher staffing playing field in other states by providing a standard rate of pay regardless of district enrollment or geographic location. While admitting that districts could offer additional compensation above the rate of the state determined salary schedule, universal wage was suggested to have shrunk the gap between high and low paying districts. By linking pay increases to licensure, the state salary schedule also seemed to incentivize professional growth through additional coursework and completion of advanced degrees. With this idea in mind, it would appear that a state teacher salary schedule may be a way to level the teacher staffing playing field in Montana. If inequity among districts in the competition for high quality staff does exist, it may serve as the evidence needed for school funding reform.

All the superintendents pointed to a limited tax base as a factor impacting their districts' revenue. While some attributed their tax base limitations to property values, others blamed the presence of large amounts of public land. Regardless of the reason, the unwillingness and/or financial inability of local residents to support operational levies seemed to limit school funding and stagnate teacher compensation. If these districts are unable to compete for high quality teachers due to their tax base's inability to provide sufficient funding, then leveling the teacher staffing playing field may be a reason for doing school funding reform.

Summary

The culminating themes from these western superintendents' experience of the impact of school funding policy on staffing challenges include: limited tax base, limited

funding, uncompetitive teacher compensation, limited housing, frustration with school funding, and a need for school funding policy reform. The general essence drawn from these themes suggests current state policy may not provide enough funding for these rurally isolated, impoverished western Montana school districts to equitably compete for the services of high quality teachers. All of these districts appeared to have tax bases limited by low property values and moderate to high mill rates. The financial strain on their impoverished communities seemed to make the passage of operational levies nearly impossible. Without local funding to compensate for state revenue lost as a result of declining enrollment, teacher wages appeared to have become uncompetitive in these districts and seemed to contribute to their staffing challenges. The limited supply and high demand for housing appeared to have driven up costs to a level unaffordable for new teachers. In addition, housing conditions often seemed substandard and not conducive to long term residency. The struggle to compete for the services of high quality teachers appeared to have frustrated many of the superintendents who felt disadvantaged by current funding policy and hopeless that their district's fortunes would ever improve. In a call for policy reform, a state salary schedule was suggested as a possible way to level the teacher staffing playing field.

West Case Study Superintendent One

Superintendent One was selected from among the four superintendents representing the qualifying school districts in the west focus group. The selection was based on the superintendent's volume and perceived representative nature of responses.

Interview questions were based on two of the study's primary objectives, superintendents' experiences of staffing challenges and the impact of school funding policy on teacher recruitment and retention, and can be found in the Table of Specifications in appendix B, the interview protocol in appendix D, and the interview follow-up questions in appendix E. In order to protect the anonymity of the participant, no demographic data that would identify the superintendent or his/her district was collected.

Experience of Staffing Challenges

Three primary semantic relationships (attribution, cause effect, and rationale) were discovered during typological analysis of the data relating to the first western case study superintendent's experience of staffing challenges (see tables 19 and 20 in appendix W and X). Over the past decade, the district seemed to have experienced more frequent staffing challenges than they typically had in the past. Fortunately, recent teacher recruitment efforts appeared to have been very successful. Explaining the challenges of teacher staffing in the district, the superintendent shared:

> It depends on the year. Some years are better than others with regards to our ability to recruit. Our last go around was actually pretty good because we were looking for elementary general education. Several years back, we were looking for a special education teacher and the only qualified applicant we got was from Alaska. The only reason that we got her is that she grew up in our county. Since her family was from the area, she wanted to move the whole family back home.

According to the superintendent, the annual degree of staffing challenge depended on the positions they were attempting to fill. As with some other rural districts, it appeared primary positions had been easier to replace. However, unique positions like special

education seemed to have been much more difficult to address. While discussing the challenge of replacing certain teaching positions, the superintendent also described an unusual staff phenomenon:

> I think that especially in those harder to fill areas, we have to be a lot more proactive. Another interesting thing that's been going on in our district, and it's a case of timing, but we've had mass retirements in the last 10 years where we've probably lost over 10 long-time certified teachers. When I say long-time, I mean over 25 years.

Heavy teacher attrition brought on by several retirements appeared to have increased the frequency of the district's staffing challenges and created a situation where they experienced vacancies on a near annual basis. Contributing to the turnover, the district also seemed to occasionally lose teachers to another district:

> I'm not throwing rocks but they have a significantly higher starting salary, and they are a bedroom community to Missoula which makes them obviously very, very attractive. Rent is better there than it is in Missoula. Ironically, rent is probably as good as it is here because we have a housing shortage right now. So as a consequence, we have lost staff from here to there. It's just salary and, I think, the convenience of being close to the city.

The combination of heavy attrition and moderate mobility suggests frequent teacher turnover was a characteristic of this rurally isolated, impoverished western Montana school district. As the faces in classrooms had changed, so too had the focus of district professional development.

In order for educators to grow as professionals, continuous training is needed. District Pupil Instruction Related (PIR) days allow time for scheduling local workshops or attending PD hosted by other schools or professional organizations. Explaining the how the district had been using its PD time, the superintendent shared:

> We've had the opportunity of getting a lot of new or first-time teachers. So, we've had to ramp up our efforts with regard to getting them training whether it's Time to Teach, or discipline, MBI, or RTI; acronyms that aren't necessarily found in the preservice teacher prep programs. In PIRs, we spend more time reviewing or introducing them to those newer teaching pedagogies than if we had the ability to hire more seasoned staff.

With the influx of new teachers, the district seemed to focus more PD toward addressing their needs as opposed to veteran staff. While the superintendent also argued that "refresher training" was "good for all staff," the admission that they would not be spending "more time reviewing or introducing" material if they were able to hire more experienced educators suggests PD focused on new teachers was a characteristic of this remote and poor western Montana school district and a result of their frequent staffing challenges. While the shift in PD emphasis may hinder long term staff growth, especially if retention becomes a bigger issue, a reliance on provisionally licensed staff could reveal a greater problem.

When school districts do not receive qualified applicants for an open position, one option to fill the staffing need is a provisional license. As previously explained, a provisional license, also known as a Class Five license, is a kind of teacher certification that can be used to allow a non-qualified individual to teach a subject area while simultaneously earning the endorsement at a state approved institution of higher learning. Describing the district's reliance on provisionally licensed teachers, the superintendent shared:

> We were concerned because we weren't getting quality applicants for the positions that we had advertised, so we've had to create internships for sure. We've had to do it in Technology, we've had to do it in Industrial Arts, and we've had to do it in Foreign Language, and then most recently to get a good Math teacher. That's how we hired her was through an internship.

> It's a Class Five until she gets that done, and she has three years to get that done.

The story suggests that a lack of quality applicants led the superintendent to pursue individuals within the district and community that were perceived to be good candidates for the vacant teaching positions. By doing so, the district was able to address four positions that were extremely difficult to fill. Such an experience suggests that a reliance on provisionally licensed staff was a characteristic of this rurally isolated, impoverished western Montana school district and a result of their inability to attract both qualified and quality applicants. Should the district not experience such frequent staffing challenges, there would seem little reason to skew PD toward the needs of new teachers or rely so heavily on provisional licenses. One factor that may contribute to the need for repetitive PD and dependence on provisionally licensed staff could be the district's geographic location.

In an earlier narrative, the superintendent recalled the experience of losing teachers to another district. The competing district was described as situated near the city which was argued to make them "very, very attractive" to some teachers. If, as the superintendent suspected, the teachers that left the district factored the "convenience of being close to the city" in their decision to move, their departure could suggest the district's location is not as preferable as others. Therefore, a less desirable geographic location seemed to be a characteristic of this remote and poor western Montana school district. Ironically, the superintendent argued that his/her district was "ideally situated" since it was relatively close to the city too; just not as close as some of their competitors. Explaining the challenge in recruiting teachers to the district, the superintendent shared:

> It's just we are on the edge. We're really close to Idaho whereas you're on the other edge. You're close to North Dakota. That's the challenge of recruiting to the edge of the wilderness instead of right there in the middle; in the heart of the city.

The portrayal of the district as being on the "edge of the wilderness" suggested that while they may be a reasonable distance from the city, they were nearer to a vast, desolate region. Therefore, competitors more proximal to the city may make the recruitment of high quality teachers, especially those young and single, extremely difficult for the district. With this notion in mind, it would seem that this remote and poor western Montana school district's lack of qualified and quality applicants for some teaching positions may be a result of a less desirable geographic location. While some might find their location less appealing, the district seemed to boast other characteristics that many may find attractive.

A more meticulous examination of the district's new hires revealed a few details that could provide insight on the type of candidate they were most successful attracting. In a portion of the superintendent's story about the staffing challenges experienced in the district, the recruitment of a special education teacher was chronicled. While the only qualified applicant the district received was from another state, the individual happened to be raised in the county that the district resided. It was the teacher's family tie or connection to the county that appeared to make the district an attractive place of employment. Describing a somewhat similar experience, the superintendent shared:

> I think small towns still appeal to Montana small-town kids. Our latest hire was just a couple of weeks ago. We had a bumper crop of kindergarteners this year, so we ended up having to split the class in half in January. We got her, I think, because her folks own a ranch in a very rural Montana

> county. Being a small-town kid, a Class C kid, she thought the fit was really good for her because our type of school was what she's used to.

The account suggests that the teacher found the district attractive because she could relate to its "small town" status having grown up in a small town and attended a small school district herself. A class C school district is the smallest high school classification in Montana with an enrollment of 107 students or less (MHSA, 2018, p. 19). These experiences would seem to indicate that hiring teachers from other small towns or with a county tie were characteristics of this rurally isolated, impoverished western Montana school district. Just as those above, the influx of new teachers appeared to impact both the collective quality of the teaching staff, as well as student outcomes, but not as one might first imagine.

At first glance, many may associate teacher turnover with having a negative impact on staffing and, consequently, student outcomes. However, this is not always the case. Explaining the impact of the last decade of teacher turnover in the district, the superintendent shared:

> It's been addition through subtraction, literally. We've been very, very fortunate. A few that have gone recently were fairly well past their shelf life, and the folks we've replaced them with have been outstanding. I actually think student outcomes are going to increase because there are two ways of looking at that question. Typically with the old sage, the folks with the most experience are hopefully going to shepherd people to success but we have found, especially with the plasticity required of new folks learning new curriculum, they're not nearly as reticent in trying and failing and then adjusting. We just started with a new Math curriculum this year, K-12, and we're pretty enthusiastic because the young staff are really driving the innovation and they're really willing to do the work to get better. We're already starting to see our scores rise especially in the elementary.

The narrative suggests that the district's turnover had actually improved the collective quality of the faculty by ushering out teachers with diminished effectiveness and replacing them with some that appeared, at a minimum, to possess qualities necessary for success. Important to note, the admission that the district was "very, very fortunate" to have hired such quality teachers may indicate that landing them was not always a given. The superintendent perceived that the energy, enthusiasm, and work ethic of their new teachers would improve student outcomes and had already experienced some academic gains at the primary level. With these experiences in mind, it would seem that improved staff quality and rising student outcomes were characteristics of the district and a result of hiring high quality teachers to replace those retiring. But that was not where the positive traits ended, the district also appeared to be more technologically advanced and teacher friendly than one might expect to find in a rural area.

Depending on the degree of remoteness, technology can be a challenge in rural districts. Beyond obvious geographic barriers, funding for technology can also be difficult to procure. However, that was not the case for this district. Detailing the access to technology in the district, the superintendent boasted:

> We think we are one of the most tech-forward districts in the state of Montana, especially for small rural districts. Every single kid, K-12, has a laptop computer whether it's a Chromebook, or MacBook Pros in the high school. The kids in grades 7-12 get to take those computers home as long as they have exceptional grades, attendance, and behavior.

As the story portrayed, students in the district seemed to have high quality access to technological devices. Undoubtedly, such access could permit properly trained teachers to expand and enhance instructional delivery in a way that those without or limited access

could not. In addition to technology, the superintendent argued that the district offered a teacher friendly environment:

> The school improvement culture here is teacher-driven, and I've worked in a lot of places as a teacher and an administrator where that was not the case. It was top-down administration, and that is pretty oppressive, and I think that we're the opposite of that. I think the way that we look at the job of teaching kids makes us very attractive.

By providing opportunities for shared leadership and meaningful contributions in district initiatives, the superintendent believed that their teachers felt valued. Such a belief conveys a notion that teachers may find a collaborative work environment more attractive than those that are largely bureaucratic. These experiences suggest that ample technology and a teacher supportive culture were characteristics of the district. On top of the benefits of working for the school district, the community seemed to possess many attractive qualities as well.

Although the district's rural community was small, there was more to do than one might perceive at first glance. Typically, rural towns also experience less crime than more populated areas. Describing the uniqueness of the community, the superintendent shared:

> We have a really safe community. It's really clean. We're a river community so there's lots of stuff to do in the summertime. We have some of the best fishing and hunting in the western United States. It's interesting because we have a bunch of different professional guide organizations that bring hunters and fishermen in from all over the United States to come take part in those pursuits. It's free if you live here of course.

The community was argued to be both safe and clean, conditions that most, if not all, teachers would likely find attractive. The river and surrounding wilderness area also

seemed to provide many opportunities for outdoor recreation. The experience suggests that a safe and outdoor recreational community were characteristics of the school district.

Summary

The culminating themes from west superintendent one's experience of staffing challenges include: frequent teacher turnover, PD focused on new teachers, reliance on provisionally licensed staff, less desirable geographic location, improved staff quality, rising student outcomes, hire small town teachers or those with a county tie, ample technology, teacher friendly school culture, and a safe outdoor recreational community. The general essence drawn from these themes suggest staffing challenges were a moderate problem in this remote and poor Western Montana school district. The unusual combination of recent mass retirements and occasional loss of teachers to a competing district resulted in an experience of frequent teacher turnover. With the influx of new staff, district professional development seemed to be tailored more toward the needs of new teachers. An inability to attract qualified and quality applicants for some high school core content and specialist positions appeared to have resulted in a reliance on provisionally licensed staff. The lack of applicants for such positions may be related to a perception of the district's geographic location as less desirable than some competitors. Although the district had lost several veteran teachers to retirement, the energy, enthusiasm, and work ethic of new teachers seemed to have improved the staff quality. As a result, student outcomes appeared to be on the rise especially in primary grade levels. The district seemed to have had the most success recruiting teachers from other small Montana towns or those with a family connection to the county. In what may come

as a surprise to some, the district boasted ample technology to enhance instruction. The superintendent also argued that the district espoused a teacher supportive school culture by providing opportunities to lead initiatives and encouraging participation in the decision making process. Beyond the benefits of working for the district, the community appeared to offer a safe place to live and abundant outdoor recreational activities.

Experience of the Impact of School Funding Policy

Four primary semantic relationships (attribution, cause effect, means end, and rationale) emerged from typological analysis of the data relating to west superintendent one's experience of the impact of school funding policy on staffing challenges (see tables 21 and 22 in appendix Y and Z). In an earlier narrative, the superintendent described the occasional loss of teachers to a competing district. One of the factors attributed to the hemorrhage of these teachers was "a significantly higher starting salary." Given that the district's new teachers tended to be young and inexperienced, the fact that they had lost some newer teachers to the higher paying district in the past suggested that recruiting and retaining young talent may be difficult. With limited resources, raising wages to a point comparable to the other district did not appear to be an option:

> We live in a community where the budget is tight and do a really good job of trying to keep what we ask of local tax payers. I don't have the latitude to go to the voters. We're already at our cap. If we were going to run a levy, I think I'd have like $14,000-$15,000 available to levy and then that's it which obviously, as you well know, doesn't go that far.

With very little money left to levy before reaching their max budget, the district seemed to lack the funding necessary to increase teacher wages. The superintendent described the district's current rate of pay as "not good" and added that teacher wages were "not

good all over the place for rural Montana." These experiences suggest that losing teachers to a higher paying district and uncompetitive teacher compensation were characteristics of this rurally isolated, impoverished western Montana school district and a seeming result of limited funding. If the district loses some teachers due to lower wages, it would seem that the staffing challenges they experience may also be a result, in part, of their fiscal constraints. Conversely, their rival's success in utilizing higher wages as a tool for teacher recruitment would seem to indicate that a more lucrative compensation package might reduce the frequency of staffing challenges. Therefore, it would seem that competitive teacher wages may be a way to improve the district's recruitment and retention efforts. While these financial issues might make teacher staffing more challenging, housing within the district may further compound the problem.

Housing is a necessity of life. As soon as they are able, people that no longer feel comfortable with their housing situation often move into a more acceptable residence. Describing housing within the district, the superintendent shared:

> It's pretty terrible. We used to be a mill town for years and years when I grew up here through the 70's and 80's. You know, we have really nice summers here and the winters are…it's Montana winter. We've had a lot of folks move in that are retirees. So, that puts a lot of stress on the available housing units. They have created some low-income housing, but then that's taken up by folks that either don't work or work in a marginal fashion. That's one of the struggles. We had a heck of a time with the new kindergarten teacher that we hired. That was one of her conditions is, "You have to guarantee me that I'll have a place to live." It was a scramble to do that, but she's actually renting a house from one of our staff members just so we could make sure that we were able to keep her.

The "strain" on the housing supply precipitated by the mass consumption of retirees was a story that has been echoed by many other rural Montana superintendents. To go so far

as to “guarantee” a prospective teacher housing revealed both the desperation of district and the dismal residential market in the area. Beyond the implication of words like “terrible,” phrases like, “puts a lot of stress” and, “it was a scramble” implied a negative connotation with regard to housing as well as a sense of both pressure and urgency in the search for a place to call home. With supply limited and demand high, the superintendent had argued that the typical “$700-$800 a month” cost of housing was often more than new teachers could afford. These experiences suggest that limited housing was a characteristics of this remote and poor western Montana school district. Furthermore, the inadequate supply and high cost of lodging in the district would seem to indicate that their recurring staffing challenges may be a result, in part, of limited housing. Between uncompetitive wages and abysmal housing, the superintendent seemed to feel that the district was somewhat disadvantaged in the teacher staffing market.

In many of the previous narratives, the superintendent made comments that insinuated a disadvantage between rural districts and more suburban and urban districts. Teacher compensation in the district was described as “not good;” a label also ascribed to rural districts “all over” the state. To convey the impact of uncompetitive wages on district staffing, the superintendent shared a story about losing teachers to another district with higher wages. Not only did the superintendent seem to feel disadvantaged by disparities in pay but also in geographic location. The competing district’s close proximity to the city, with its abundance of amenities, was felt to siphon some teachers away. Combined, the other district’s better compensation and location appeared to make the superintendent feel disadvantaged in the competition for high quality staff. To

conflate matters, the superintendent also seemed to feel disadvantaged by the limited supply of housing within the district which often appeared to price new teachers out of the market. In contrast, the competing district offered more housing options at a cost the superintendent argued was "probably as good as" within his/her district. Although the expense was similar, higher teacher wages within the other district seemed to make housing in their area more affordable. In an attempt to more thoroughly explain the staffing disadvantage of the district, the superintendent shared:

> We're pretty constrained in what we can do to make the place more appealing to get folks here. I think the legislature, or OPI for that matter, they've never given money to schools to set aside just for recruitment which is unfortunate. If there are 10 good teachers out of 50 in the state available for hire that the universities pump out, you really don't want to be taking the 41st teacher that's available. Again just like everywhere else in industry, the best go to where they're going make the most or where they're going to have the best situation. We clamor to make sure that we try to make ourselves as good a situation for those folks as possible. We don't get outside help doing that.

According to Merriam-Webster, the word "constrain" means, "to force by imposed stricture, restriction, or limitation" (Constrain, n.d.). Therefore, the superintendent's use of the word "constrained" could be interpreted as meaning that the district had a "limited" ability to make itself appealing to potential applicants. The definition further suggests that their restricted ability to make the district "appealing" was something that had been "forced" upon them. In other words, the district's funding limitations seemed to restrict the superintendent's ability to make improvements needed to attract high quality teachers. Although the district appeared to do its best to make itself appealing, the superintendent was quick to point out that the state did not offer any additional assistance to help them do so. Therefore, a sense of disadvantage in the

recruitment and retention of high quality teachers seemed to be a characteristic of the superintendent and a result of limited funding in this rurally isolated, impoverished western Montana school district. If the staffing challenges in the district can be attributed, even partially, to insufficient funding, then larger policy revisions may be needed.

As a possible remedy to the staffing challenges created by limited housing within the district, the superintendent shared:

> I think it would be really intelligent for the state, in each community that has a public school, to look at either structural financing or figuring out a way for districts to be able to create teacherages. Especially through tenure for three years to essentially have rent control so you could be able to sell that as, "Well, you're not going to start like you do in more populated districts at $30,000 a year but I can offer you free rent where all you pay for is your own utilities." The value of not having to pay, like in our community $700-800 a month for rent, would make rural schools much more competitive I think.

To offset the lack of supply and high cost of housing in the district, the superintendent recommended the state consider allocating funds for the purpose of building "teacherages." The district's experience of both losing and gaining staff as a result of housing suggests that quality and affordable housing may be a way to improve teacher recruitment and retention in this remote and poor western Montana school district. The concept of additional targeted financing as well as general funding policy reform were also offered as potential forms of relief for rural districts struggling with teacher staffing.

Since the district, and others like it, struggle to recruit and retain high quality teachers, the superintendent believed it would make sense for the state to target additional funding toward improving staffing in rural districts:

> It would be better if the state would identify areas in which they could assist schools like recruitment and say, "Okay, we understand that there is a teacher shortage. These are the things that we are willing to do, and these are the funds that we're going to make available."

Before a problem can be solved, it must first be acknowledged. An argument was made that the state should officially recognizing teacher staffing as a major crisis, especially in rural and poor school districts, and then go about the process of identifying and prioritizing solutions and funding. The district's experience of frequent staffing challenges and limited housing would seem sufficient reasons for doing supplemental state funding. Therefore, the proposal for additional targeted funding may a way to improve teacher recruitment and retention efforts in the district as well as others like it. Furthermore, the superintendent argued that it may be time to consider more aggressive reforms to school funding policy:

> There's always going to be the question of equity. Rural districts are always going to suffer as opposed to big districts especially when the funding formula is always based on ANB. This year is an interesting example for us. Usually we run at about 16-18 kindergarteners, but this year we have 27. The blip for us…I didn't get any extra cash to say, "Hey I've got to go hire a new teacher." We just have to know that in three-year averaging, our ANB is going to bump up little bit, a nominal amount, but the show still has to go on in the present time. So, we're always looking in the crystal ball and trying to adjust based on those fluctuations of enrollment. It would be nice to have a little more static recipe so we are more quickly able to account for those anomalies.

Current school funding policy's heavy reliance on student enrollment was suggested to create concerns over the "equity" of funding between large and small districts. Since large state districts tend to be more urban and small districts rural, it would seem that more urban districts might have a funding advantage based on the sheer difference in enrollment between the two. Although the district experienced an unexpected bump in

kindergarten enrollment, no immediate additional funding was received to offset the cost of hiring an additional teacher. While they would receive a "nominal" increase in funding the following year, based on a three year average of enrollment, the superintendent suggested that a more "static" funding formula could help the district better compensate for staffing needs due to "fluctuations of enrollment." With this notion in mind, it would seem that a school funding policy less reliant on student enrollment may be a way to help this rurally isolated, impoverished western Montana school district compensate for unanticipated staffing needs.

The previous narrative suggested that there will "always" be a "question of equity" with any school funding policy that relies heavily on student enrollment. Adding to the list of policy deficiencies, the superintendent addressed the issue of statewide teacher wage disparity:

> I do think the equity issue from big schools to little schools would improve if we had things like a unified benefit system and a unified salary system like Washington State. I think if this question was asked of all of the MEA/MFT, you would find that the most vociferous opponents would be those big districts. It wouldn't even be from outside of education. It would be from the Billings, the Missoulas, the Great Falls, and the Kalispells because their teachers do enjoy much better insurance and a higher salary, which I do think leads to some disparity in rural districts. It should never be an "us vs them" within public education. It should be "the rising tide raises all boats equally."

An argument was made that larger urban districts benefit most from current funding policy because they enjoy the biggest student enrollments. With a larger allocation of state funding, the superintendent suggested that these districts have used their greater fiscal capacity, in part, to increase their teacher wages beyond what rural districts can competitively offer. With a natural inclination to "go to where they're going make the

most," the superintendent believed that the "disparity" in teacher compensation exacerbated the district's teacher staffing challenges. To remedy the wage gap between urban and rural districts, the superintendent proposed a statewide teacher compensation package like the one used in "Washington State." The state's larger districts were pointed to as potential barriers to such solutions given their perceived staffing advantage. If school funding policy contributes to teacher wage disparity and compounds the staffing challenges experienced in this remote and poor western Montana school district, then leveling the teacher staffing playing field may be a reason for doing major school funding reform.

Summary

The culminating themes from west superintendent one's experience of the impact of school funding policy on staffing challenges include: limited funding, uncompetitive teacher compensation, loss of teachers to a higher paying district, limited housing, a sense of being disadvantaged by school funding, and a need for additional target funding as well as broad school funding policy reform. The general essence drawn from these themes suggest current state policy may not provide enough funding for this rurally isolated, impoverished western Montana school district to equitably compete for the services of high quality teachers. A budget near their cap seemed to have all but maxed out the district's ability to generate local revenue, while a small enrollment appeared to limit their distribution of state funding. With funding seemingly limited, the district appeared to have been unable to maintain teacher wages at a rate competitive with some other districts in the region. The short supply and high cost of housing seemed to have

made it nearly impossible for new teachers to both find and afford a place to live. A combination of low wages and limited housing also appeared to have influenced some teachers to leave the district for another that boasted higher wages and a better housing market. The superintendent's inability to provide competitive compensation and quality housing appeared to generate a feeling of disadvantage with regard to teacher staffing. Additional state funding targeted toward remedying impediments to staffing, like housing, was suggested as a potential solution to help the district, and others like it, improve teacher recruitment and retention. A funding policy less reliant on student enrollment, like a statewide teacher compensation package, was also proposed as a measure to address teacher wage disparity and level the teacher staffing playing field between more urban and rural districts.

West Case Study Superintendent Two

Superintendent Two was selected from among the four superintendents representing the qualifying school districts in the west focus group. As with Superintendent One, the selection was based on the superintendent's volume and perceived representative nature of responses. Interview questions were based on two of the study's primary objectives, superintendents' experiences of staffing challenges and the impact of school funding policy on teacher recruitment and retention, and can be found in the Table of Specifications in appendix B, the interview protocol in appendix D, and the interview follow-up questions in appendix E. In order to protect the anonymity

of the participant, no demographic data that would identify the superintendent or his/her district was collected.

Experience of Staffing Challenges

Three primary semantic relationships (attribution, cause effect, and rationale) and two secondary (function and strict inclusion) were discovered during typological analysis of the data relating to the second western case study superintendent's experience of staffing challenges. As before, secondary relationships provide context for understanding while primary associations convey the general essence of the superintendent's experience (see tables 23-25 in appendix AA-CC).

Teacher staffing in remote and poor school districts can be challenging when few express interest in open positions, but what happens when no one applies? In a single story, the superintendent summarized how the district had managed cases in which no applications where received:

> We've had positions go unfilled. The biggest deficit occurred about four to five years ago when our Music teacher retired. We posted the position for two years and did not have one candidate. So, we had to drop our entire Music program. Another good example is the school counselor position. We use to have a 3/4-time school counselor who also taught some dual-credit courses at the high school level. He retired last year and we knew he was going to retire. So in January, we started posting for the position and got nobody, absolutely nobody. So, we had to go to TRS [Teacher Retirement System] to get an emergency waiver for the school counseling position. He came back this year, thankfully, and he is doing two hours of school counseling duties a day. So, we've lost school counseling and we have lost a Music program. Last year, we went through three English teachers for one position. We ended up finishing our English program online through MDA.

Not only did the district typically appear to receive few applications for open teaching positions but, in some cases, there was no interest garnered for high school core content and specialist positions. When there were zero applicants for a position, they had gone unfilled until an emergency licensed individual and/or retired teacher could be put in place to temporarily fill the void. Unfortunately after no one could be found to take the Music position that had been unfilled for two years, not even someone interested in an emergency license, the program had to be dropped entirely. Similarly, the school counseling position was all but dropped due to a lack of interest in the position. In the short term, they had to rely on a retired teacher, with an emergency license, to serve as counselor in a less than part-time capacity. The frequency of turnover in their single high school English position, three teachers lost in one year, and the necessity of finishing course delivery through MDA, a state administered online education provider, demonstrated the extreme degree of difficulty the district had experienced in retaining teachers. These experiences suggest that few teacher applicants, unfilled teacher positions, loss of school programs, reliance on retired teachers and/or emergency licensed staff, frequent teacher turnover, and use of MDA in place of a teacher were characteristics of this rurally isolated, impoverished western Montana school district. Furthermore, their unfilled teacher positions, loss of school programs, and dependence on retired and emergency licensed staff seemed to be a result of the district's inability to attract teachers. Conversely, the district's reliance on MDA in place of a teacher appeared to be a result of an inability to retain teachers. While the district would prefer to maintain a full complement of school programs and hire working age staff that are

properly licensed, the experience indicates that their unfilled teacher positions was a reason for dropping school programs and relying on emergency licensed and/or retired teachers. With so few applicants and such high turnover, the district's educational quality appeared to have suffered.

While not all experienced teachers are high quality, some are. When these teachers leave a district and are replaced with young new teachers, an expectation of the same level of effectiveness may be overly ambitious. In a story that explained the difference between a new teacher and a quality established teacher, the superintendent shared:

> Although our new English teacher is doing a really fantastic job, she's working on her Master's degree, she's green. She's very, very new. I think she's actually really raised the rigor and the professionalism for a lot of teachers because she's right out of school; she's doing all the right things. She's doing her lesson plans and they're really well thought-out. She came really well prepared, but her classroom management…well, she's a new teacher. So, classroom management is a struggle for a lot of young new teachers. That is something that is difficult for her, but it will come in time.

The problem for the district was twofold. Although the new teacher demonstrated some good qualities, her effectiveness was limited by both her lack of experience and grasp of classroom management. This example demonstrated that young new teachers often limit staff quality until such time as they gain the knowledge and experience necessary to become highly effective educators. While the superintendent believed the new teacher would improve overtime and develop into a high quality teacher, thus improving overall staff quality, there was concern that they might "lose her next year" to another school district. Should the teacher leave, the district would find itself looking for its fourth English teacher in two years. If the district continually replaces young new teachers with

more teachers of the same ilk, the quality of the staff will likely remain limited until the cycle is broken by a teacher who stays long term. With the turnover of the English position in mind, it would seem that limited staff quality was a characteristic of this remote and poor western Montana school district and a result of the frequent teacher turnover they endured. When staff quality is limited by frequent turnover, the continuity of the program experiencing the turnover may also be impacted.

Like many small rural schools, each of the district's specialist and high school core content positions were staffed by one teacher. When turnover occurred in any of those positions, the continuity of the program was disrupted as the new teacher replaced old procedures, expectations, and instructional style with his/her own. Describing the impact of the district's staffing challenges on school programs, the superintendent shared:

> It's been a struggle for the last two or three years but last year, I think, was particularly horrible especially in English. I happen to have an elementary school teacher who had a minor in Music. She's not endorsed, but she can teach Music at the elementary level. So, we added Music back to our elementary students, but that's required a lot of juggling because she's a 2nd grade teacher. So, it's a lot of trading classes in order to meet that Music piece. Yet, we still fall short because we don't have Music at the Junior High level, which we're required to for accreditation standards. So the continuity, particularly in English and Music, hasn't been there.

Referring back to the high school English position, the superintendent alluded to the discontinuity of instruction students' experienced when three different teachers, as well as MDA, took over their classes at various points in the year. Essentially, the revolving door of instructors seemed to prevent not only the development of cohesive high school English courses but also a consistent English program from one grade level to the next. The experience seemed to indicate that frequent teacher turnover was a reason for doing

MDA in place of a teacher. In addition to English, the continuity of the schoolwide Music program appeared to be all but destroyed when the program was completely dropped for a few years and then somewhat brought back in the elementary. Although Music was once again taught at the primary level, middle and secondary school students could only take Music through MDA. Based on the delivery of instruction alone, aside from potential differences in expectations, the transition from a traditional brick and mortar program in elementary to a non-traditional online directed program in junior high and high school seemed to disrupt the continuity of the Music program. Therefore, limited school program continuity appeared to be a characteristic of this rurally isolated, impoverished western Montana school district and a result of the frequent teacher turnover they experienced. Unfortunately, disjointed school programs often have a less than desirable impact on student outcomes.

The example of the district's English position demonstrated how frequent turnover could disrupt the educational experience of students by continually subjecting them to new expectations, teaching style, and even method of instructional delivery. While student's grasp of English concepts and content may be affected by turnover, the churn of new teachers in such an important position may have a larger impact schoolwide. Describing the influence of the English position on other content areas, the superintendent shared:

> When you have such turnover in the English department and can't keep a staff member in there, the ability to do anything across content becomes very limited. For example, our biggest deficit is in Writing; a concept that begins in the English program. Our Writing scores on the ACT Plus Writing are just horrid! We see it pop up in other places. Students who do try to take the AP exams typically don't do very well because of the Writing

> component. Also, while we offer several dual-credit classes, many of our dual-credit students aren't eligible to take it for credit. They might still take the class but not for credit because they can't pass the Language component of it. So, you have to go in and test, and you have to be able to show proficiency in Reading and Writing regardless of the content, and many of our students aren't able to pass that in order to take the class for credit.

The story demonstrated that the students' struggle with writing concepts extended beyond their English courses to impact other subject areas. According to the superintendent, the lack of consistent staffing in the English position prevented the development of a cohesive English program and was particularly detrimental to students' understanding of the highly structured concept of writing. The experience suggests that suppressed student outcomes was a characteristic of this remote and poor western Montana school district and a result of the frequent teacher turnover they incurred. A potential factor in the constant struggle to staff the English position, as well as other hard to fill district teaching vacancies, could be their geographic location.

Although the district was roughly an hour from a few of the state's larger cities, the superintendent described it as "pretty isolated." The community boasted one gas station, bar, restaurant, and cafe. If one needed groceries, a minimum of a "30 mile" trip could be expected. With extremely few amenities in town, school district employees that lived in the area often seemed to travel to one of the cities for major goods and services. Others that lived outside the area appeared to have to "commute" back and forth from home to school and home to the city. The area's description suggests that geographic isolation was a characteristic of this rural and impoverished western Montana school district. To overcome potential staffing barriers like location, a more creative staffing approach may be necessary.

In a district that had a history of receiving few applications for open positions, the superintendent seemed to know that a proactive recruitment approach would have a much higher probability of landing a teacher than waiting idly by and hoping that someone applied. Outlining a plan for the upcoming teacher recruitment cycle, the superintendent shared:

> I'm going to be posting for a Music teacher here very soon. I still don't know if my English teacher will return, and I'll also be posting for the school counseling position because my school counselor will continue to do it, but he doesn't want to. He'd rather be retired-retired. We have three possible significant teaching positions, which I don't think is typical, but I imagine I'll spend quite a bit of time trying to find the right person, doing some outreach. I have some connections, specifically with the Music department at MSU, so I'm hoping that networking allows me to leverage who I know to try to get somebody in here.

Aside from getting a head start on planning for known and probable teacher vacancies, the superintendent mentioned application of a creative recruiting practice to increase the odds of finding teachers to fill the positions of need within the district. As previously discussed, a creative recruiting or staffing practice is a kind of unconventional approach to identifying and actively pursuing potential teacher candidates for hard to fill positions. The district's experience of few applicants and frequent turnover would seem to be reasons for doing a creative recruiting practice like networking. As described by the superintendent, "networking" is a kind of creative recruiting practice in which one party attempts to "leverage" a relationship with another party in order to gain an advantage over competitors who seek the same outcome. In this case, networking would be applied in hopes of using a relationship with personnel in the MSU Music department to find an aspiring Music teacher before other districts had a chance to recruit the person.

Therefore, it would seem that utilization of a creative recruiting practice, like networking, was a characteristic of this remote and poor western Montana school district. While some might find the previously discussed traits less appealing, the district did appear to possess many characteristics that others may consider attractive.

Rural Montana school districts often have more to offer than may first meet the eye. Beyond abundant outdoor recreational opportunities found in the rural areas across the state, these districts seemed to offer a much quieter and slower pace of life opposite the hustle and bustle of more urban areas. Describing the benefits of working for the school district, the superintendent shared:

> We have lots of intangible benefits for working for our district. We have a four-day school week. If you have a family at all, a four-day school week is a huge boon. If they have activities, you don't have to take personal days to go to those games if they're on Fridays. Despite some turnover, we also have a really positive morale in our school district. You can feel it. It's a positive place to be. The kids are happy. We have very few problems in terms of discipline. Our location is pretty beneficial. So for a lot of people whose family is from Montana, it's typically within an hour's drive of many people's families. We are very flexible in lots of ways. If you need to take two hours off to go to the doctor…if you can find a staff member to cover your class, then I don't dock your sick pay. So, you have up to two hours to take care of things you need to take care of. That is very helpful to people, just being able to kind of have everybody else's back. We have very, very small class sizes. You might have an elective class if you're at the high school with five or six kids in it. Our largest classes, even the core classes are going to be 18 students. Our smallest grade-level class has seven kids.

Unlike more traditional school calendars, the district's four-day school week appeared to allow employees a three day weekend. The additional day off seemed to make it easier for teachers to schedule medical appointments, fulfill parental obligations, or travel to the city for goods and services without missing work. School culture also seemed to be pleasant as students and staff appeared happy. Since disciplinary concerns were reported

as very infrequent, teachers seemed to lose very little instructional time addressing student behavior. The superintendent also argued that their geographic location, while remote, was not a far drive to the city; at least in the Montana sense of a long trip. Administration was described as "flexible" and willing to work with teachers when they needed to leave school early for unexpected reasons. The sense that everyone had each other's back conveyed a team atmosphere where all employees pooled together to make work easier and less stressful. Smaller class sizes also seemed to make the job of teaching more manageable with the workload lighter, responsibilities fewer, and classrooms less crowded. The description suggests that a four-day school week, central location, flexible school administration, small class sizes, and few student disciplinary issues were characteristics of this rurally isolated, impoverished western Montana school district.

Summary

The culminating themes from west superintendent two's experience of staffing challenges include: few teacher applicants, unfilled teacher positions, loss of school programs, reliance on emergency licensed and/or retired teachers, frequent teacher turnover, use of Montana Digital Academy (MDA) in place of a teacher, limited staff quality, limited academic program continuity, suppressed student outcomes, geographic isolation, creative recruiting practice, four day school week, central location, flexible administration, small class sizes, and few student disciplinary problems. The general essence drawn from these themes suggest staffing challenges were a significant problem in this remote and poor western Montana school district. Receipt of extremely few

teacher applicants, one if they were lucky, appeared to have become the standard expectation for district openings regardless of content area. Unfilled positions seemed to result in the complete or partial loss of two school programs and the hiring of emergency licensed and/or retired teachers in part-time, or lesser capacity, to fill some of the vacancies. The turnover of three teachers in the high school English position, within the span of a single school year, appeared to compel the district to finish all high school English course instruction through MDA. Lack of consistent staffing in the district's sole high school English position also seemed to have limited staff quality and disrupted the continuity of not only the English program, but the curricular development of Writing across all content and high school grade levels. The absence of a uniform instructional approach for Writing, pedagogy heavily influenced by the high school English teacher, appeared to contribute to students' exceedingly low ACT Plus Writing scores as well as their struggles with the Writing component in AP exams and Language element in dual credit courses. With goods and services extremely limited and the closest city approximately an hour's drive, geographic isolation seemed to exacerbate the district's staffing challenges. In an effort to bolster the district's applicant pool, the superintendent planned to use the creative recruiting practice of networking to leverage professional relationships in hopes of identifying and recruiting potential candidates to fill positions of need. While some may perceive a few of the district's characteristics as less appealing, others might find their four-day school week, flexible school administration, small class sizes, and infrequent disciplinary issues attractive.

Experience of the Impact of School Funding Policy

Four primary semantic relationships (attribution, cause effect, means end, and rationale) and two secondary (function and strict inclusion) emerged from typological analysis of the data relating to west superintendent two's experience of the impact of school funding policy on staffing challenges (see tables 26-28 in appendix DD-FF).

Some rural Montana school districts may struggle to generate local funding if their tax base is limited by low property values and an absence of industry. As discussed previously, school districts must petition residents to raise the mill rate, a measure used in the calculation of property taxes, if they desire funding above their base budget. Since state funding decreases as student enrollment declines, a reality facing many rural Montana schools, the burden of school funding seems to shift ever increasingly to local tax payers. Describing the financial climate of district, the superintendent shared:

> Because we don't have a whole lot of businesses in town, we have a hard time with just getting our County taxes to a point where they're sufficient enough. Our taxable value is low compared to other districts in the region. For example, another district near to us has a much more vibrant business and tourism industry. They are actually a smaller district than us by 10-15%, yet their taxable value is much higher because there are so many businesses. They have many more people coming through and their streets are in better condition. Overall, their ability to pull in that higher taxable value is much greater than us.

The superintendent argued that the district had struggled to generate "sufficient" local funding from a tax base that appeared to be limited by a lack of business and industry. Meanwhile, a smaller district in their region was suggested to benefit from a "vibrant business and tourism industry" that had helped them maintain high property values and provided a greater means to generate local revenue should the need arise and voters

approve. The story demonstrated that even district's that are larger than others might not necessarily have a greater capacity to generate local revenue. Disparity in property valuation across the state may have been the catalyst for addition of the Guaranteed Tax Base (GTB) to the state funding formula; a kind of equalization mechanism used to offset variation in local revenue generating capacity related to property wealth. But a state budget shortfall during the 2017 legislative session seemed to have had a major impact on impoverished districts' distribution of GTB as well as state non-levy revenue. Explaining the impact of state funding reforms on the district, the superintendent shared:

> Two years ago, the state legislature shifted the burden of losing the NRD [Natural Resource Development] payment and block grants. They basically did away with them. They also did not increase GTB relief to help offset taxable values so that equalization piece was off. What they did is they transferred that burden. We were still required to bring in that money; we still needed that in order to be able to function as a school district. So that burden transferred, and there was no discussion about it to local tax payers. But what they did is they setup the local school district to make it look like we raised our taxes. Residents saw a huge increase in their taxes for public schools but we had no choice in that. It was required by the legislature. That's how they offset the lack of income or the lack of revenue on their end. That was really problematic and really setup districts to look like we had raised taxes without going to the voters for a vote on those taxes. So districts that wanted to do a levy, it was really hard the past couple of years. A lot of mill levies didn't pass.

After state provided payments, the NRD and block grants, were eliminated as components of the school funding formula, the responsibility of compensating for the lost revenue seemed to be imposed on the district's tax payers. In essence, the reforms to the structure of school funding during the 2017 legislative session appeared to shift a large portion of the school funding burden, at least temporarily, to the district's residents. As a result, the perception of the district's tax payers was that the school district arbitrarily

raised property taxes without their consent. Sensing disenfranchisement among the tax base, the superintendent appeared to think there was not enough support to run a mill levy and reported knowledge of many other districts who attempted levies and had failed. These experiences suggest that limited funding, a seeming result of their limited tax base, was a characteristic of this remote and poor western Montana school district. With funding limited, the district also seemed to struggle to maintain competitive teacher wages.

In any profession that requires a four year college degree, a living wage is expected upon gaining employment. Unfortunately, many rural Montana school districts do not appear to provide compensation that would justify the cost of the education needed to become a licensed educator or sufficient to cover basic human needs. Describing the district's struggle to maintain competitive teacher wages, the superintendent shared:

> The biggest problem with keeping or finding new teachers is our pay scale. It's very low in my opinion and, although we're only basically an hour from three different cities, we're pretty isolated. There's not a lot of housing options. So if I want or a teacher wants to commute to my school district, it's going to cost them a ton of money in commuting costs because our pay scale doesn't help at all with that. It's below $30,000 a year. It's a real problem. And not only that, we don't allow for any previous experience. So if you are a teacher with 12 years of experience at John Doe High School and you come to here, you start at zero…zero years! But to not even pay a new teacher $30,000 a year in Montana where it's not cheap to live is, I think, ludicrous!

The superintendent argued that the district's lack of competitive teacher wages had affected their ability to recruit and retain high quality teachers. Their allowance of no prior years of experience toward placement on the district's salary schedule was also suggested to further complicate their staffing problems. A beginning annual salary less

than $30,000 was described as “ludicrous” especially in a state with a high average cost of living. The superintendent recalled losing new teachers to higher paying districts “many times” thus creating a retention crisis. Therefore, uncompetitive teacher compensation would appear to be a reason some teachers leave the district. Such an experience suggests that the district’s staffing challenges may be attributed, at least in part, to low wages. On the other hand, their meager salary may also be a factor influencing the extremely low number of applicants for teacher vacancies.

With few housing options in the area, those teachers living outside the district were reported to incur a high commuting expense that was not reimbursed by the district. Limited housing and expensive commutes were indicated to raise the cost of living for some district teachers to a level higher than most would expect in a rural area. With these experiences in mind, it would appear that uncompetitive teacher compensation, loss of teachers to higher paying districts, limited housing, and higher than expected cost of living were characteristics of this rurally isolated, impoverished western Montana school district. Furthermore, these issues seemed to be a result of the limited funding and/or geographic isolation of the district. While it is uncertain if the rival districts were able to retain the teachers they lured away, the superintendent argued that higher wages would also improve the district’s chances of retaining teachers by offsetting the issues of limited housing and geographic isolation that appeared to drive up the cost of living in the area. With this notion in mind, it would seem that competitive teacher compensation may be a way to recruit and retain high quality teachers in the district. Expounding on their housing situation, the superintendent shared:

> The housing stock is limited. You either have a house in town, probably for $60,000-$90,000 which is very inexpensive, but it might not be a house you want to live in. Or, we are surrounded by multi-million-dollar ranches. There's not a lot of intermediate housing. There is nothing available to rent, and there is very little rental stock. We don't have teacherages or anything. If I were moving to town because I was a teacher, and I had a family, I would definitely be struggling to find something adequate.

Since young new teachers often lack the financial capacity to purchase a home, a strong rental market is all the more important for recruitment efforts. Unfortunately, the district appeared to have an extremely limited supply of residential rental units and high local demand that kept the properties occupied. While there seemed to be a small supply of reasonably priced homes available for purchase, their condition was described as less than desirable. The admission that teachers with families could expect the most difficulty in securing "adequate" housing suggests that there were few units large enough for families or suitable, in terms of condition, for raising children. Lack of a sufficient rental market would seem to make it more difficult for the district to recruit and retain young teachers while inadequate family housing would appear to make it more challenging to attract and keep teachers with children. The virtual absence of a residential rental market within the district and poor condition of the few homes available for purchase suggest that limited housing may be a reason some teachers do not apply for open positions. Therefore, it would seem that the staffing challenges in this remote and poor western Montana school district were a result, in part, of limited housing. Located within a geographically isolated area, the district's high cost of living, associated with limited housing and the need to commute for goods and services, could impact the number of teachers that apply to the district. This notion suggests that geographic isolation may also

be a reason some teachers do not apply for open positions. While housing and fiscal issues appeared to exacerbate the district's teacher recruitment and retention challenges, it also seemed to have impacted their approach to balancing their budget.

With the non-voted increase in local property taxes, triggered by recent legislative changes to the structure of school funding, there appeared to be little appetite in the community for a school district operational levy. However facing a shortfall, the district had to do something to balance their budget. Explaining how the district addressed their financial deficit, the superintendent shared, "We didn't do a mill levy; we were able to manage without it. But, for example, we had to RIF a Special Education teacher to make sure that we were able to meet our budget." As discussed earlier, a Reduction in Force (RIF) is a kind of staffing function used to reduce the number of staff by termination of employment. The district's inability to generate revenue sufficient to meet their financial obligations suggests limited funding is a reason for doing a RIF. By applying the staff reduction measure, the district was able to balance the budget by terminating the employment of a special education teacher. The measure reduced their Special Education staff down to one full-time teacher and increased the number of students the teacher was responsible for instructing. While their special needs class size grew with the consolidation of students under one teacher, the district fell within class size guidelines established by state law. The experience suggests that use of RIF to meet fiscal obligations, a seeming result of limited funding, was a characteristic of this remote and poor western Montana school district. Frustrated by financial constraints, the

superintendent indicated that the district faced a competitive disadvantage in the recruitment and retention of high quality teachers.

During discussion of the district's teacher salary schedule, the superintendent's word choice conveyed a sense of frustration and disadvantage. Referring to an annual teacher salary below $30,000 as "ludicrous" suggested that the level of compensation was "absurd" and "laughable" (Ludicrous, n.d.). Similarly, the repetition of words like "zero" when explaining the number of prior years of experience allowed toward placement on the district's pay scale expressed a heightened degree of dissatisfaction with the status quo and drew attention to its detrimental effect on teacher recruitment. Together, the sentiment reinforced the superintendent's assertion that the district's uncompetitive compensation package was disadvantageous to their staffing efforts. Although relatively consistent throughout the interview, additional emphasis was placed on the words indicated above as detected through a slight rise in voice level and altered inflection. The superintendent's tone noticeably changed from casual to one of frustration when discussing the legislature's changes to school funding. Frequent use of the word "setup" conveyed the perception that the legislature's action had been borne of "deceit or trickery" intended to make local school districts appear the party responsible for the unexpected and precipitous rise in many peoples' property taxes (Setup, n.d.). These responses suggest that both a sense of frustration with school funding policy and disadvantage within the teacher staffing market were characteristics of the superintendent and a result of the fiscal constraints of this remote and poor western Montana school district.

With funding seemingly constrained by a small enrollment and limited tax base, the district appeared to struggle to consistently staff its classrooms with high quality educators. If the district had additional funding or a means to generate more revenue, it might achieve a higher rate of success in recruiting and retaining teachers. Proposing revisions to school funding that may improve staffing in the district, the superintendent shared:

> There needs to be higher funding per ANB. That would be very helpful to us. I also think there needs to be a higher offset for rural schools so that we can even attract teachers. There is a huge discrepancy between districts. For example, a district roughly an hour from us starts its teachers at a salary over $40,000 per year. Year one out of college and you're going to make over $40,000 a year in that district. The other piece that's important is the housing piece. It's the cost of living where you're at. $30,000 a year as a beginning teacher in a rural district like ours will not get you as far as you might think. That's something that needs to be addressed. A statewide salary schedule tied to teacher licensure would also help. I don't think it is something that's going to solve all the problems, but what it does is at least give people a chance to know they're okay. Not only that, but your licensure is tied to your education. It incentivizes your teachers to continue with their education.

An argument was made that more state funding per student would relieve some of the school funding burden incurred by their impoverished tax base. The superintendent also claimed that an additional state contribution, designated for rurally isolated school districts, would allow them to address teacher housing needs and improve the cost of living in the area. Finally, a universal teacher salary scheduled was pointed to as measure that could address the wage disparity perceived to impact teacher staffing in the district while simultaneously encouraging teachers to continue their professional development. These sentiments suggest that more funding per student, an additional state contribution for rurally isolated school districts, and a state teacher salary schedule may be ways to

improve their teacher staffing efforts. If the district lacks the fiscal capacity to compete for the services of high quality teachers due to funding constrained by a limited tax base, then leveling the teacher staffing playing field might be a reason for doing such school funding reform measures.

Summary

The culminating themes from west superintendent two's experience of the impact of school funding policy on staffing challenges include: a limited tax base, limited funding, use of Reduction in Force (RIF), uncompetitive teacher compensation, higher than expected cost of living, loss of teachers to higher paying districts, limited housing, a sense frustration and disadvantage with teacher staffing, and a need for school funding policy reform. The general essence drawn from these themes suggest current state policy may not provide enough funding for this rurally isolated, impoverished western Montana school district to equitably compete for the services of high quality teachers. The district's tax base appeared limited by a lack of business and industry which seemed to result in few opportunities to transcend poverty and severely diminished property values in the area. Consequently, the district seemed to struggle to generate enough local funding to balance their budget. Further exacerbating their financial issues, recent legislative changes to the structure of school funding appeared to eliminate a portion of previous state payments to the district and shift the responsibility of compensating for the lost revenue to a seemingly already overburdened tax base. Feeling disenfranchised by the precipitous rise in their property taxes, there appeared to be little local appetite for a school district operational levy. With a budget shortfall anticipated and no additional

revenue to cover expenses, the district applied a RIF to terminate the employment of a teacher in order to meet their financial obligations. The district's funding limitations also seemed to stagnate wage growth which appeared to contribute to their steady hemorrhage of new teachers to higher paying rivals. Uncompetitive compensation also seemed to play a role in the district's receipt of very few applicants for open teaching positions. In addition, limited housing and an unexpectedly high cost of living appeared to further complicate the district's teacher recruitment efforts. Frustrated by the inability to adequately address their staffing challenges, the superintendent argued that limited funding had placed the district at a competitive disadvantage in the recruitment and retention of high quality teachers. To level the teacher staffing playing field, the superintendent recommended reforms to school funding including more state funding per student (ANB), additional state payments for rurally isolated school districts, and a state teacher salary schedule.

West Summary

Common themes regarding the experience of staffing challenges among both the west focus group and west case studies include: few applicants, frequent teacher turnover, less desirable geographic location, creative staffing or recruiting practices, and teacher supportive school cultures. The general essence drawn from these themes suggests staffing challenges were a significant problem in the participating rurally isolated, impoverished western Montana school districts with degree of severity increasing with remoteness. These districts appeared to receive few applicants and experience frequent

turnover of both new teachers and veterans ready to retire. All seemed to have relied on staff that were either provisionally licensed, emergency licensed, retired, and/or some combination thereof to fill teaching vacancies. The districts also appeared to be located in less desirable areas with perceived attractiveness decreasing the more geographically isolated the school. In an effort to proactively address their struggle to recruit and retain high quality teachers, some of the districts have applied creative staffing practices, like using new teachers as recruiters or converting existing teachers to fill another grade level or subject area vacancy, or a creative recruiting practice like networking with colleagues and/or personnel within the university system. While each district boasted some individually unique and seemingly attractive characteristics, all the superintendents argued that their schools provided a teacher supportive culture lead by a flexible administration.

Among both the west focus group and west case studies, the common themes associated with the experience of school funding policy's impact on staffing challenges include: a limited tax base, limited funding, uncompetitive teacher compensation, loss of teachers to higher paying school districts, limited housing, a sense of frustration and disadvantage related to school funding, and a need for funding policy reform. The general essence drawn from these themes suggests current state policy may not provide enough funding for these remote and poor western Montana school districts to equitably compete for the services of high quality teachers. Just as indicated in the general experience of staffing challenges, the impact of school funding on these districts also appeared to correspond with remoteness. The more geographically isolated the district,

the more they seemed to struggle with poverty. An apparent reflection of a largely poor demographic, their tax bases seemed to be limited by low property valuations. The combination of impoverished communities and low property values appeared to limit their funding by straining capacity to generate local revenue via property taxes. Recent legislative changes to the structure of school funding seemed to further impact these districts by failing to increase GTB payments, eliminating previous state contributions (i.e., NRD and block grants), and shifting the responsibility of compensating for all the lost revenue to local tax payers. As a result, some of these districts experienced an increase in their local mill rate. Residents in many of these districts appeared to react with an air of disenfranchisement. If any support for operational levies in these districts existed before the legislative changes to school funding, there seemed to be little appetite at the time of this study. With funding limited by various degrees in all the districts, teacher wage growth seemed to have stagnated. Receipt of few applicants and loss of several teachers to higher paying competitors suggested that uncompetitive compensation may be an influential factor in these districts' teacher staffing challenges. Poor housing conditions and limited availability seemed to complicate their teacher recruitment and retention efforts as well. The remoteness of these districts also appeared to increase the cost of living related to the need to commute for practically all major goods and services. Frustrated by the lack of resources they felt necessary to adequately compete in the teacher staffing market, the superintendents of these districts believed their district suffered from a fiscal disadvantage. To remedy the perceived inequity, these

superintendents proposed several school funding reform measures ranging from additional funding for rural districts to a statewide teacher salary schedule.

State Summary

Experience of Staffing Challenges

As evident in the superintendents' stories, both halves of the state seemed to share some common struggles in relation to teacher staffing. Regardless of geographic location, all participating districts reported receipt of few teacher applicants ranging approximately from zero to four individuals for a standard vacancy and zero to two candidates for high school core content or specialist positions. Similarly, all districts reported to have experienced frequent turnover of both new teachers as well as those of retirement age. Several districts also admitted to relying on retired teachers, provisionally licensed staff, emergency licensed staff and/or some combination thereof to fill vacant instructional positions. To address these challenges, some of the superintendents in these districts described use of creative staffing and/or recruiting practices as proactive measures to aggressively target their staffing needs. Many also alleged that their school district offered a supportive teacher climate and boasted about the abundant outdoor recreational opportunities within and around their local community.

While the east and west sides of the state appeared to experience some similar problems related to teacher recruitment and retention, a few differences also seemed apparent. With the exception of the district receiving oil and gas money, the participating eastern superintendents specifically described their applicants as being of lower quality

than those received in years past. Although this candidate designation was not consistent among the participating western superintendents, their stories seemed to indicate that the quality of their teacher applicants diminished the more remote the western district's geographic location. Therefore while many of the eastern school districts appeared to mostly attract lower quality applicants, the challenge of recruiting quality teachers in the western school districts seemed to be greater for those more isolated than others. Although all of the participating school districts were designated rural remote by U.S. Census standards, only the eastern superintendents were quick to describe their districts as geographically isolated. The western superintendents seemed more inclined to portray their districts as situated within driving distance, in the Montana sense of the phrase, of one or more of the major western cities. It is uncertain whether their failure to fully acknowledge their isolation was a product of self-denial or if school districts west of the Rocky Mountains Great Divide genuinely seem less isolated than those on the eastern side of the state. Finally and again excluding the district with oil and gas funding, the eastern superintendents reported that the staffing challenges they experienced limited both the collective quality of their teachers as well as the continuity of their school programs. On the other hand, some western superintendents experienced the opposite as quality young teachers replaced veterans that were no longer as effective as they once were. As before, only those western districts more remote than others reported that their staffing challenges limited the collective quality of their teachers and the continuity of their school programs.

Experience of the Impact of School Funding Policy

No matter east or west of the divide, school funding appeared to impact the staffing of participating school districts in similar ways. All the superintendents reported limited funding with which to address their district's staffing needs. However, despite state data indicating they share the same experience, eastern superintendents pointed to small and declining enrollment as the source of their funding limitations more so than western superintendents (OPI, n.d.). To the contrary, western superintendents argued that their district's limited tax base was most to blame for their financial constraints. Ironically, county data revealing low property tax values in some of the participating eastern districts, excluding those receiving oil and gas money, suggest they might endure a limited tax base as well. These findings indicate that the sources of the participating districts' funding limitations may be more similar than currently realized all of which appear linked to the structure of school funding policy established by the state. Attributed to limited funding, each of the superintendents reported teacher wages that were not competitive with other districts in their region; however, only western superintendents recounted losing teachers to higher paying rivals. Since nearly all the eastern districts reported issues with teacher turnover, this difference did not seem to indicate that teacher retention was not problematic for their districts. Rather the stories of eastern superintendents seemed to indicate that they have extreme difficulty just attracting teachers to fill positions in general. The experience suggests that there is no opportunity for turnover if one does not first fill the position. In addition, many of the participating eastern districts may be more geographically isolated than most of the

participating western districts. The distance between competitors, especially distance from one of the state's cities, may limit the frequency of turnover in eastern districts and increase the difficulty of attracting applicants. Housing was a unanimous concern among all participating districts. Regardless of location, the housing supply appeared generally low, demand high, and condition unsatisfactory. All the superintendents suggested that housing was a barrier to teacher recruitment and retention in their district. Frustrated with the lack of funding perceived necessary to adequately address their staffing needs, nearly all the superintendents conveyed a sense of disadvantage in the statewide competition to employ high quality teachers; the lone exception being an eastern oil and gas district. As opposed to their western counterparts, eastern superintendents were slightly more pessimistic that their staffing fortunes would improve. However, all agreed that school funding reform was necessary in order to sufficiently address their teacher recruitment and retention challenges. There was much support among districts from both sides of the state for funding reform that placed less emphasis on student enrollment (ANB) and included a statewide teacher salary schedule.

CHAPTER FIVE

DISCUSSION

Providing additional basis for triangulation, this study's findings are compared with the 2016 RISE4MT data, similarities and differences discussed, and recommendations made for future RISE4MT research efforts. Triangulation continues as specific findings for both halves of the state are then discussed in relation to county data associated with school districts, previous research, and the study's theoretical and conceptual framework culminating with the implications for the east and west portions of the state as well as Montana in general. Recommendations for superintendents of remote and poor districts, state policy makers, and future research are then made followed by a final word of caution to all Montanans.

RISE4MT Comparison

Comparing the RISE4MT (2016) data with the descriptions of staffing challenges conveyed through the lived experience of superintendents in rurally isolated, impoverished Montana school districts was an objective of this study (Research Question 3). A key finding in RISE4MT (2016), school districts statewide reported difficulty recruiting high quality teachers across several academic areas and grade levels. Narratives from both the eastern and western superintendents participating in this study appeared to reinforce the RISE4MT (2016) finding through varying accounts of their own struggle to recruit teachers. While many recounted receiving few applicants regardless of grade level or subject area, their staffing problems seemed to be more concentrated and

most severe in high school core content and specialist positions. With the exception of one western district relatively close to a city, the experience of the other superintendents from both groups of this study also seemed to create a general consensus reflective of the RISE4MT (2016) finding that most superintendents believed the quality of their teacher applicant pool had declined compared to years past. Likewise, the reliance on emergency and/or provisionally licensed staff by many of the districts in this study appeared to reinforce the RISE4MT (2016) finding that exposed heavy utilization of such licensure provisions by a significant percentage of school districts across the state.

School administrators' dependence on OPI's teacher job portal for marketing teacher vacancies was another RISE4MT (2016) result further supported by this study. While a few of the superintendents mentioned application of additional methods to recruit prospective teacher candidates, all appeared to indicate, either verbally or through physical gestures of agreement, that they posted their district's openings on the OPI teacher job portal. However, judging by the few number of applicants typically received, the effectiveness of the job portal in generating applicants for these districts did not appear stellar. Disaggregated data from the RISE4MT (2016) study further revealed that several teachers chose to work in districts in which they already resided. Many of the superintendents from the current study seemed to have the most success hiring individuals with a local connection to their district and, therefore, would appear to reinforce the RISE4MT (2016) finding. Finally, nearly all of the participating superintendents, excluding one eastern superintendent whose district received oil and gas money, appeared to agree with the 80% of teachers in the RISE4MT (2016) study that

believed higher wages was a factor critical to retaining high quality teachers. Although the data indicated teacher compensation was a factor that influenced both teachers' selection of employer as well as their decision to remain with a district, RISE4MT suggested the data revealed other factors that were "equally or even more important" (Montana Public Education Center, 2016). However, both a more exhaustive analysis of the RISE4MT (2016) data and the findings of the current study suggest RISE4MT's assessment of the impact of salary on Montana teachers' career decisions may not be entirely accurate for teachers of certain demographics.

On the surface, the RISE4MT (2016) data would appear to indicate that teacher wages was as important or in close approximation to job availability, retirement, and health care benefits when choosing a job as well as within range of school climate factors as the most influential variables in the decision to remain with an employer. On the other hand, and as more thoroughly discussed in chapter three, disaggregation of the data revealed significant variance among the responses of participants by gender, age range, and locale. These findings suggest that teacher compensation may have a greater impact on the career decisions of men, younger teachers, and teachers within certain geographic regions of Montana. Although experiences of staffing challenges related to teacher gender were not mentioned during discussion, accounts from superintendents in this study seemed to reinforce the RISE4MT (2016) finding that younger Montana teachers were more prone to turnover when encountering low wages, geographic isolation, or both. Unfortunately, the lumping of rural districts with larger urban areas in more than

half of the regions outlined in the RISE4MT (2016) study may inadvertently skew the self-report data and mask further variation within these regions.

Future research efforts by RISE4MT would benefit from more precise demographic data. For example, inclusion of additional age ranges would allow for a more accurate breakdown of the younger teachers who reported salary as an influential factor in their employment decisions. Furthermore, an analysis by county, rather than geographic region, would segregate most rural districts and prevent their self-report data from being masked by inadvertent oversampling of more populated areas. Given its prevalence in Montana, an additional variable RISE4MT may wish to consider is the 4-day school week. In Sawchuck's (2018) article, the 4-day school week was self-reported as an influential factor in the retention of teachers in rurally isolated school districts. In light of Sawchuck's (2018) finding, it would be interesting to discover Montana teachers' perception of the 4-day school week and how it might relate to teacher recruitment and retention across the state. Since all the current variables are categorical in nature, chi-square tests could be administered if the data were stored in a spreadsheet form compatible with statistical software like SPSS, SAS, or other similar programs. Finally, addition of a continuous variable, perhaps for salary, would allow for more advanced quantitative analysis. With this information, for example, one could determine if there is any correlation between teachers' actual salary and self-report satisfaction with salary.

Triangulation and Implications

Experience of Staffing Challenges.

Investigating teacher staffing challenges through the lived experience of some superintendents in remote and poor Montana school districts was another objective of this study (Research Question 1). Beginning with the more predominant findings, the participating districts' common teacher supportive attribute seemed to reinforce the findings of current research that indicated rural districts like these often provide a school climate in which educators maintain much instructional autonomy and have more input in the school decision making process (Player, 2015). Their shared experience of receiving few and often lower quality teacher applicants also appeared to support previous works that found rural school districts acquired less applicants for teacher vacancies and hired fewer high quality new teachers than districts in more populated areas (Monk, 2007; Player, 2015; Wisconsin Department of Public Instruction, 2016). Similarly, their common struggle with frequent teacher turnover seemed to reinforce well documented studies that revealed both new (Hanushek et al., 2004; Lankford et al., 2002) and high quality teachers (Fowles et al., 2014; Goldhaber et al., 2011) had a higher probability of turnover in impoverished districts than those in more advantaged schools. While the reliance, by many of this study's districts', on emergency and/or provisionally licensed staff is supported by recent Montana research (RISEMT, 2016) as well as work in another state (Wisconsin Department of Public Instruction, 2016), their dependence on retired teachers to fill vacant positions does not appear, to the researcher's knowledge, to be a topic addressed in the literature related to teacher staffing challenges. Its absence in

research may be related to laws in several states, as was the case in Wisconsin (Wisconsin Department of Public Instruction, 2016), that prevent retired teachers from rejoining the workforce. The finding might be indicative of an apparent waning supply of Montana produced educators as indicated by a significant decline in enrollment for teacher preparation programs as well as a modest drop in the number of program completers (U.S. Department of Education. Title II, 2016).

Significant evidence within superintendent narratives pointing to geographic isolation as a source, in part, of the staffing challenges experienced in the study districts seemed to further support the findings of earlier research at both the state and national level. For example, Stoddard and Young (2005) found that teacher turnover was roughly 6 to 9% higher in rurally isolated Montana school districts than their more suburban and urban counterparts. In addition, a survey of the literature on rural staffing challenges by Lavalley (2018) found that rural districts often experience a combination of generational poverty, geographic isolation, and exposure to less effective teachers that limit student outcomes more so than those served by school districts in more populated areas. Finally, a report by the Wisconsin Department of Public Instruction (2016) concluded that geographic differences appeared to place rural districts in their state at competitive disadvantage in the teacher staffing market.

For districts in this study that appeared to be more isolated, the common experience of a staff limited by teacher turnover, in terms of professional capacity, seemed to further support much research that revealed general declines in teacher quality within schools that struggled with retention (Boyd et al., 2009; Goldhaber et al., 2011;

Isenberg et al., 2013; Lavalley, 2018; Ronfeldt et al., 2013). Furthermore, the finding appeared to reinforce works that found rural schools employed larger percentages of novice (Player, 2015) and fewer highly trained (Monk, 2007) teachers than those in other geographic areas. However, some of the districts in the current study, especially those in the west relatively near to cities and those in the east generating oil and gas revenue, did not perceive their staffing challenges to have had an impact on the collective quality of their teachers. The finding may suggest that some superintendents could be reluctant, out of fear that local perception may place some blame upon them, to acknowledge that the quality of their staff had suffered as a result of the teacher recruitment and retention challenges they have endured or possibly indicate that the staffing challenges they have experienced are not as severe as districts more remote and without an additional stream of revenue. Indeed and just as one of the western districts in this study reported, a small fraction of recent literature related to staffing challenges has found teacher turnover to actually improve staff quality, and subsequently student outcomes, when low preforming teachers are replaced with enthusiastic new teachers (Adnot, Dee, Katz, & Wyckoff, 2016; Boyd et al., 2009).

Seemingly precipitated by both limited staff quality and frequent turnover, the diminished continuity of school programs incurred by the more isolated and impoverished districts in this study appeared to support prior research that found schools with high rates of teacher turnover had a less unified instructional program (Guin, 2004) that often prevented them from making any significant educational advancement (Shields et al., 1999). The obstructive or detrimental impact of continual exposure to less

effective teachers and fractured school programs on the student outcomes of these districts appeared to support a growing portion of the literature that has found student achievement to stagnate (Barnes, 2007) or even decline (Isenberg et al., 2013; Ronfeldt et al., 2013) when subject to frequent teacher turnover. A proactive approach to staffing challenges, many of these districts applied creative staffing measures (i.e., converting existing teachers to teach other hard to fill content areas, identifying and recruiting quality local residents to teach, and utilization of provisional teaching licenses) or creative recruiting practices (i.e., networking with colleagues and professionals within the university system) in an attempt to improve the quality of their applicant pool and ultimately their teaching staff. To the researcher's knowledge, the application of creative staffing or recruiting practices, while likely not uncommon, does not appear to be formally recognized in the literature as a method to address staffing challenges. Its absence in research may be related, as Johnson et al. (2014) have found, to the general lack of attention placed on issues related to rural education within current academia.

While the districts in this study shared several common experiences related to staffing challenges, some of the situations encountered did not appear as widespread. Never-the-less, the fact that these experiences lack consistency among participating districts should not discount there potential importance or seriousness nor the possibility that other remote and poor Montana school districts not included in this study might incur them as well. Although it was previously reported that all the districts seemed to receive few applicants, those that appeared most isolated and impoverished additionally recounted some positions going unfilled. The finding seemed to reinforce a recent

Wisconsin report that also found their state's remote and poor districts to frequently incur unfilled teaching positions (Wisconsin Department of Public Instruction, 2016). Another attribute of a district that was perceived to exacerbate the staffing challenges they experienced was their community's apparent lack of social appeal and amenities. The finding, while reflective of all the remote districts in the study, was not reported by the other superintendents nor does it appear present in related research. Similarly, an event that seemed to be reflective of many districts, especially those in the east, was the tendency to receive out-of-state applicants for open positions. To the researcher's knowledge, while likely not uncommon, the experience of regularly obtaining out-of-state applicants does not appear to be addressed in the literature. However, the finding could be reflective of teacher preparation enrollment and program completer figures which reveal an ever dwindling supply of state produced educators (U.S. Department of Education. Title II, 2016). While Ingersoll et al. (2014) found the national teacher workforce to be trending younger as many veterans seemed to be turning over due to retirement, older teachers of one district in the current study appeared to be turning over late in their career in order to bolster their retirement benefit with a higher wage before leaving the profession. Although both findings reinforce the inclination of veteran teachers to turnover when reaching retirement age, the finding of the current study seemed unique because it suggests that the turnover of some veteran teachers in one remote and poor district may be associated with a reason other than a desire to conclude their career; an urge to pad their pension.

In a seemingly less common or reported occurrence, the frequent turnover experienced by a couple of the districts in this study, one east and one west, appeared to necessitate professional development that favored the needs of new teachers over that of more established staff. The finding seemed to reinforce an early study which revealed that the professional development of schools who experienced frequent teacher turnover often lopsidedly favored the training needs of new teachers over those of more experienced veterans (Shields et al., 1999). Similarly, the strain frequent turnover appeared to place on one district's teacher mentoring program seemed to further support Sheilds et al. (1999) finding that most teacher mentors and other support staff reported being "stretched thin" and often experienced "burnout" as a result of the constant churn of new teachers in need of additional support (pp. 98, 114). Finally, some superintendents reported to improve teacher retention in their district by intentionally searching for teachers with a county or community connection or those who generally desired a rural lifestyle. The finding seemed to further support the literature championing a "grow your own" approach to teacher staffing which suggests issues of retention may be reduced by recruiting or developing a program designed to take advantage of potential talent within one's own locale (Monk, 2007; Player, 2015; Sawchuck, 2018; Skinner, Garreton, & Schultz, 2011).

The geographic related findings of this study are somewhat contradictory to those of Ingersoll (2001) who found teachers in rural areas to be less prone to turnover than those in urban areas. However, he also found small schools to have a higher rate of turnover than large schools; a result echoed by both Monk (2007) and Player (2015).

Since Ingersoll's study examined nationally representative data, the conflict may be explained by the presence of larger schools in rural areas within other states whereas most rural schools in Montana are smaller in size. Similarly, some of this study's organizational related findings did not appear to concur with those of Ingersoll (2001) who found schools with better administrative support, fewer discipline issues, greater teacher influence in decision making, and more teacher autonomy to experience less turnover. Unless the superintendents' reporting of their district climate was an inaccurate reflection of reality, the discrepancy may suggest that the geographic isolation and low teacher wages of the study districts might offset the benefit of a teacher supportive school climate.

The implications of the staffing challenges experienced by these remote and poor Montana school districts appear to project a potentially troubling future. Their exposure to frequent turnover seemed to make them more predisposed to breakdowns in organizational capacity. For example, the continuity of their school programs appeared to be more vulnerable to fracture and their teaching staff more susceptible to declines in quality. In addition, some cases suggest that the professional development of these districts may also be more prone to limitation and mentor programs more vulnerable to exhaustion. As a result, the student outcomes of these districts may be more at risk of stagnation or regression. Application of creative staffing and recruiting practices may help these and similar districts improve the quality of their applicant pool and ultimately the teachers they hire. However, when coupled with largely aging teaching staffs, the apparent trend of acquiring very few, if any applicants for open positions and increasing

frequency of teacher turnover suggests the quality and consistency of these districts' workforce may become more volatile and vulnerable in the future as higher numbers of veterans choose to retire and are replaced by the young and inexperienced, emergency or provisionally licensed, and/or those transient in nature.

Experience of the Impact of School Funding Policy

Investigating the impact of school funding policy on superintendents' experience of staffing challenges in rurally isolated, impoverished Montana school districts was the final objective of this study (Research Question 2). Beginning with the more predominant findings for the school districts represented in this study, an attribute seemingly common among them was a small and often declining student enrollment. The finding appeared to reinforce the quantitative results of previous Montana research which revealed wide disparities in enrollment trends across the state (Stoddard & Young, 2005, p. 13) as well as a greater degree of difficulty associated with teacher staffing in smaller districts (p. 19). In addition, a five year analysis of Montana school enrollment revealed a pattern of decline in all but one of the participating districts which maintained a static figure (OPI, n.d.). Another common characteristic of these districts appeared to be limited housing. While housing does not seem a factor explored in the literature related to teacher staffing, it has been mentioned in a Missoulian newspaper article as an issue presumably impacting the recruitment of young new teachers in Montana (Davis, 2017). The same sentiment also seemed to apply to the cost of living in these districts. Although few reported it as a potential characteristic, an inventory of community resources and amenities suggested teachers living in or near these districts would likely have to

commute thirty miles or more to gain access to a variety of goods and services. Again, while the issue does not appear to be given much attention in related research, the Missoulian has indicated that the unexpectedly high cost of living in some districts may contribute to the teacher staffing challenges they experience (Davis, 2017). In addition, many of the remote districts in the study also appeared to qualify as a "food desert," defined by the USDA as a rural community of at least 500 residents and located more than 10 miles from a supermarket or large grocery store (Gallagher, 2011). Finally, uncompetitive teacher compensation was a trait that appeared common among these districts. The finding seems to further support previous studies that revealed teacher wages of rural school districts to be significantly lower than that of their suburban and urban counterparts (Monk, 2007; Player, 2015).

While some experiences did not seem quite as prevalent as others, it is possible that other qualifying districts not included in the study may incur them as well. Albeit less reported and possibly less common, loss of school programs seemed to be a characteristic of a couple of districts; one east and one west. The finding appeared to further support the results of a state level Wisconsin working group in which rural superintendents reported eliminating some school programs due to their inability to recruit and hire a teacher (Wisconsin Department of Public Instruction, 2016). However, the eastern district's program cuts appeared to be more a result of insufficient funding as opposed to staffing barriers. Similarly, a district from each side of Montana reported application of staff reduction measures (i.e., RIF) in order to balance their budget. Although there appears to be little scholarly research related to RIF beyond its general

cost saving application in education finance, the finding seemed to reinforce the results of a report in which diminishing state funding compelled teachers in rural Appalachia to be laid off despite their district's persistent teacher staffing challenges (Hanford, 2017). Finally, the financial constraints of one eastern school district appeared to force them to combine two classes. To the researcher's knowledge, the practice of combining classes as an economic measure does not seem to be addressed in the literature relating to education finance or staffing challenges.

With the exception of an eastern district that had additional oil and gas revenue, the effect of small and frequently declining student enrollment seemed to limit these districts' financial contribution from the state. In addition, the total taxable value of property within these districts, excluding oil and gas revenue districts, was substantially lower than districts in more populated areas (Montana Department of Revenue, 2019). However, the total taxable value of the major school districts representing the state's seven largest cities ranged from two to eight times that of even the oil and gas revenue districts represented in this study (Montana Department of Revenue, 2019). To illustrate the statewide variation in property wealth, for example, the combined high school and elementary total taxable value of the Billings School District was roughly $636 million dollars compared to approximately one million combined dollars of total taxable value for Melstone's high school and elementary district (Although qualified, Melstone did not participate in the study). While the Billings school district serves several thousand more students (approximately 17,000), their local property wealth would appear to provide them with a significant advantage in revenue generating capacity compared to the limited

tax base in remote and poor districts like Melstone. The finding would appear to mirror that of Sawchuck (2018) who suggested that a lack of industry, as well as the surrounding farm land typical of rurally isolated Colorado school districts, limited their local revenue generating capacity. Since Montana school funding is predicated largely on student enrollment and has been a relatively stable policy over the past decade, application of the current study's conceptual model may help stakeholders better understand the teacher staffing related experiences of the participating rurally isolated, impoverished Montana school districts.

Connection to Theoretical and Conceptual Framework

The conceptual model of the study is based on Baumgartner and Jones (1993) social theory of Punctuated Equilibrium (PEST) which suggests important political and economic policies have been historically dominated by affluent groups seeking to prolong their advantage until policy stability is disrupted by sweeping changes in public opinion or government control. Alexander et al., (2015) has found school funding to be a largely state controlled economic policy that has been historically monopolized by the wealthy who have defended their local fiscal advantage of greater income and property wealth by confronting efforts to equalize school funding with intense political opposition. As suggested in PEST, history has shown Montana school funding policy to endure long periods of stability until growing concerns of equity have compelled opposition (Montana Quality Educator Coalition, n.d.). While the early 2000's were punctuated by a flurry of lawsuits challenging the "adequacy" of education funding, the last significant litigation found in favor of the state (Columbia Falls v. State of Montana II, 2008) which was ruled

to be in the process of making a "good faith effort" to uphold its constitutional obligation. Since the ruling, state education funding policy has enjoyed a little over a decade of relative stability. However, the superintendents representing the remote and poor districts participating in this study have argued that recent legislative changes have shifted more of the school funding burden from the state to local jurisdictions that often lack the fiscal capacity to compensate for the lost revenue. In addition, the majority of these districts appeared to be losing additional state funding due to declining student enrollment. Finally, even the minutest attempt to provide financial relief to districts struggling with teacher staffing challenges, the most severe cases of which have been found in remote and poor districts (Stoddard & Young, 2005), through state funded educator loan assistance was stripped of funding in the 2017 biannual legislative session. With these experiences in mind, it would appear that current Montana school funding policy may favor more affluent school districts in property and student enrollment rich areas and precipitate funding disparities in the rurally isolated, impoverished school districts represented in this study.

As outlined in the conceptual framework, the result of seeming funding inequities, especially in districts most remote and poor, would seem to contribute to their low teacher wages. Unable to compete with the compensation offered in more affluent districts, the framework suggests low teacher wages exacerbate the staffing challenges experienced in these districts. The concept appeared to be reinforced by the stories of participating superintendents, especially those in the west, who recounted frequent loss of teacher recruitment competitions as well as intermittent poaching of existing staff to

higher paying school districts in more desirable geographic areas. As further support, superintendents of remote Wisconsin school districts have also chronicled the routine loss of applicants and "poaching" of their existing staff by districts that offer significantly better compensation (Wisconsin Department of Public Instruction, 2016, pp. 5, 7). The superintendents of the current study also reported few applicants, if any, and suggested that the general quality of the applicant pool available to them had declined compared to years past; a finding reinforced by RISE4MT (2016) and nearly identical to that of Idaho superintendents in Johnson et al. (2014). With little in terms of compensation, social appeal, and amenities to entice them to stay, new teachers in these districts frequently seemed to turnover within a few years of their hire. Many of the superintendents in this study appeared to express frustration with their persistent staffing challenges and seemed to convey that current school funding policy placed their district at a competitive disadvantage within the teacher staffing market; a sentiment also shared by superintendents of rurally isolated, impoverished Wisconsin school districts (Wisconsin Department of Public Instruction, 2016).

The conceptual framework also suggests that the constant and cyclical nature of the staffing challenges experienced in these districts may diminish staff quality. While not a universally reported occurrence, the majority of superintendents appeared to support the concept in narratives that recounted the frequent hiring of inexperienced teachers that needed time and additional training to develop their craft, teachers seemingly transient in nature, and/or those with an emergency or provisional license. Regardless of the hire, new teachers rarely seemed to stay with these districts long enough to enhance staff

quality. In essence, collective teacher quality in these districts appeared static at best as they continually seemed to repeat the same staffing process every few years. The conceptual framework further suggests that diminished staff quality may weaken the organizational capacity of these districts. Although less reported, some districts appeared to reinforce the concept in accounts that described professional development skewed to the needs of new teachers, new teacher mentor programs strained by overuse, and school program continuity fractured by inconsistent staffing. Finally, the conceptual framework suggests that a weakened school organizational capacity may suppress student outcomes in these districts. The concept seemed to be supported in some superintendents' stories as well as through general acknowledgement during focus group discussion. While only a couple superintendents admitted that their district's student outcomes appeared to be negatively impacted by organizational deficiencies stemming from the staffing challenges they have incurred, others acknowledged concern for the future of student outcomes in their districts should their current experience of staffing challenges not improve. As was suggested in regards to diminished staff quality, it is possible some of the participating superintendents did not report the experience of suppressed student outcomes out of fear that local constituents may place some of the blame on them. On the other hand, a couple studies have found student outcomes to improve when less effective teachers exit via attrition and are replaced by eager new teachers (Adnot et al., 2016; Boyd et al., 2009). In total, these experiences beg the question, "Do Montanans find it acceptable for rurally isolated, impoverished school districts to be a seeming repository for less effective

teachers since it would appear that they have become a choice of 'last resort' for excellent, new teachers entering the profession?"

The implications of current school funding policy on the staffing challenges experienced by these remote and poor Montana school districts appear to be disadvantageous with increasing disparity for those most isolated and impoverished. Their small and often declining student enrollment and, with the exception of oil and gas districts, seemingly limited tax base appeared to reduce funding contributed from the state and constrain their local revenue generating capacity. With funding apparently limited, the seeming disparity between teacher wages in these districts and that of those in more populated and property rich areas may continue to grow. In some cases, budget shortfalls may also make these districts more predisposed to reductions in force (RIF), combined classes, and the elimination of some school programs or activities. Housing markets that appeared limited and a seemingly higher than expected cost of living may further exacerbate their future teacher recruitment and retention efforts. As a result, these remote and poor districts may be more prone to experience severe staffing challenges including receipt of few applicants, occurrence of unfilled positions, and the poaching of existing staff as well as the organizational problems that often seem follow.

Recommendations

The stories of the participating superintendents expose and suggest many things that these and similar remote and poor school districts can do to potentially improve teacher staffing. Their often successful application of creative staffing and recruiting practices suggest that looking within the district and community as well as networking

with other superintendents and university system personnel may improve the probability of a quality hire. These approaches to teacher recruitment may be further enhanced by developing them into "grow your own" programs. Districts in the current study, and those similar, would be wise to pool their influence and seek collaboration with the state university system to develop such a program that would allow high school students within their district to take dual credit courses toward a teaching degree. The program should also be expanded to include a pathway to teacher licensure for community members within these districts. Since many Montana school districts already offer a variety of adult education courses, the addition of teacher preparation courses to the program would seem a natural fit. Because most of these districts, and many like them, are far removed from state institutions of higher learning, it would benefit adult program enrollees if the primary delivery format of instruction were web-based. With such a program, superintendents could proactively target staffing needs by locally marketing, both in the high school and community, anticipated teacher shortage areas, identifying potential candidates, and encouraging them to enroll. To ensure widespread success of grow your own programs, the state's two major universities would be wise to enlist the help of the various community colleges across the state. By taking advantage of the community colleges' diverse locations, more hybrid teacher preparation programs could be extended to geographic areas that may have previously been perceived as beyond reach. However, heavy reliance on "home grown" teachers may unintentionally produce a bastion of implicit bias and limit diversity of ideas and exposure to other cultures that might otherwise benefit these districts. Therefore, additional research on the

organizational impact of "grow your own" programs, with particular scrutiny of the impact on diversity, is warranted.

Studies have consistently shown that high quality teacher mentor programs can increase teacher retention rates (Ingersoll, 2012; Ingersoll & Strong, 2011; Shockley et al., 2006). Therefore, if not already in place, a new teacher mentoring program is another strategy remote and poor school districts should consider to improve staff retention. As with any new program, success depends on emphasis and approach. According to Ingersoll (2012), new teacher mentor programs are more effective in reducing teacher turnover when they include various supports such as: regular interaction and feedback from a master teacher of the same subject, regular supportive communication from the principal, participation in ongoing training for new teachers, common planning time with teachers of the same subject, reduced course load, and assistance from a classroom aid. Although most of these supports may appear undoable due to staff size limitations in isolated and impoverished school districts, an effective program may still be achieved with a little help from the surrounding community and modern technology. For example, community volunteers could be sought to serve as a teacher's aide. Use of a video call application could permit a new teacher in these districts to meet and be observed by a master teacher of the same subject who lives in another district. Similarly, use of webinars could allow a new teacher to participate in ongoing new teacher training. Unfortunately, community volunteers and technology cannot solve every problem and many rural areas still seem to lack the technology infrastructure necessary for strong web-based PD. Most of the school districts in the current study will probably not be able

to offer new teachers a reduced course load and common planning time with teachers of the same subject may be difficult if the new teacher is the only person in the district teaching their grade level or content area. Despite these potential limitations, a new teacher mentoring programing could be effective in reducing teacher turnover in these districts if new teachers are provided with as many supports as possible and for as many years as it takes to develop them into a high quality educator. If resources are scare, remote and poor districts may also consider pooling capital to form a cooperative designed to provide mentoring services and support for new teachers.

Housing is one element identified in the study that may be key to retaining young new teachers and attracting experienced teachers to these remote and poor districts. Since housing in the current study districts appeared very limited, measures to provide teacher dwellings should be considered. Funding for such a project would be an obvious concern as many of these districts appeared to struggle just to generate enough revenue to maintain operations. However, if these districts were able to secure resources for teacher housing, they should be mindful of the type of structure to be built or purchased. If the housing offered were an apartment complex, the accommodation would probably not be much different than the living arrangements of young new teachers while in college. While possibly a good short-term solution, it is doubtful that young teachers will want to live in an apartment forever. In addition, apartment style housing may actually deter more experienced and/or married teachers that are likely used to living in a more traditional single family residence. If, as one of the participating superintendents explained, the type of teacher they have had success retaining in the past are those

looking for a "genuine Montana experience," living in an apartment complex in town is probably not what these teachers have in mind. Therefore, these school districts may find more success retaining young teachers and attracting experienced teachers if they offered modest single family housing in a setting on the edge or slightly outside of town that would deliver the "Montana experience" they desire and provide some anonymity to combat the inevitable reality of being an educator in a small community living in a "glass house."

A couple of the participating superintendents proposed that state policy makers consider providing additional targeted funding to remote and poor districts to help them address their staffing challenges. Additional funding could be utilized within the study's districts to pay for teacher wage increases, housing, or hiring incentives. When Stoddard and Young (2005) found remote and poor Montana school districts to incur the most severe staffing challenges in the state, they recommended that policy makers provide supplementary funding to these districts for the purpose of increasing teacher compensation. Similarly, a recent Idaho study has suggested that "compensatory funding" may actually improve teacher staffing for small rural school districts (Johnson et al., 2014). Much of the research on teacher staffing challenges has also suggested that hiring incentives, such as a signing/retention bonus or student loan forgiveness, will improve efforts to recruit and retain high quality teachers (Goldhaber et al., 2011; Guin, 2004; Player, 2015; Shields et al., 1999). In addition to targeted supplemental funding, many of the superintendents in the current study proposed that state policy makers also consider adopting a state funded universal teacher salary schedule. As Hanushek et al.

(2004) found years ago, higher wages reduced the probability of turnover for younger teachers. A trend Ingersoll et al. (2014) has described as the "greening" of the workforce, the typical teacher applicant for districts in the current study tended to be young and inexperienced. Since Montana has the lowest average beginning teacher salary in the country (Hoffman, 2016), with the poorest wages found in poverty stricken remote districts (Stoddard & Young, 2005), current policy would seem to favor larger more urban districts who offer significantly higher beginning compensation to younger teachers. Whether through targeted supplemental funding, a universal teacher salary schedule, or both, it would appear state policy makers need to do something to offset the seeming labor market disadvantage of rurally isolated, impoverished school districts. Since it is doubtful that few, if any, state policy makers have a background in public school finance, their best recourse may be to commission Dr. Bruce Baker, of Rutgers University, to examine Montana school funding policy and offer recommendations for improvement.

Future Research

This study has offered a small portion of the narrative on teacher staffing challenges experienced by superintendents of rurally isolated, impoverished Montana school districts. Future work distinguishing the perception of staffing challenges between male and female superintendents as well as those serving in a district operating on a 4-day week may enhance the literature. Much needed research giving voice to the experience of superintendents in Native American Reservation school districts will be vital to painting a clearer, and perhaps even more dismal, picture of teacher staffing

challenges in Montana. Work both identifying Montana school districts in geographic areas that qualify as a "food desert" and examining how that status may impact the staffing challenges they experience is also needed. Further study is necessary to determine whether the emerging themes discovered in the current work extend to remote and poor districts in other states. To grow the narrative, more qualitative research is needed to define both teachers' and students' experience of teacher staffing challenges. Additional work exploring rural poverty in both eastern and western Montana may help stakeholders better understand the nature of the condition and allow for a more thorough comparison between the two regions. Further investigation of "grow your own" teacher staffing programs may be necessary to determine the potential impact on school district's organizational diversity. In spite of the study's contribution, the literature regarding the effect of teacher staffing challenges on school organizational capacity remains scant.

Conclusion

Past research has shown that remote Montana school districts often serve high percentages of students from poor communities and experience the most severe staffing challenges in the state (Stoddard & Young, 2005). Using Punctuated Equilibrium Social Theory, the current study's conceptual model may help stakeholders better understand the conditions that appeared to perpetuate teacher staffing challenges in the participating rurally isolated, impoverished Montana school districts and present a stronger appeal for state level funding relief. These remote and poor school districts may be able to combat the potential detrimental effects of teacher staffing challenges on school organizational

capacity and staff quality by implementing creative staffing and recruiting practices, partnering with the state university system to develop "grow your own" programs, adopting a high quality new teacher mentor program, or through the joint creation of a new teacher mentor cooperative. District owned teacher housing designed to provide prospective teachers with "a genuine Montana experience" may help retain promising young teachers or attract and retain high quality experienced teachers. While future research is needed at the state level to explore teacher staffing challenges in Native American Reservation school districts, further examination of these challenges in other states, with particular attention to the impact on school organizational capacity, are necessary to more fully develop the literature. To offset the seeming labor market disadvantages of these isolated and impoverished districts, state policy makers should consider commissioning a school finance expert, like Dr. Bruce Baker of Rutgers University, to offer guidance on school funding policy.

While nothing can be done to bridge the geographic distance that separates them, it would appear that the space between remote and poor school districts and affluent more urban school districts, in terms of financing, may continue to grow unless fundamental changes are made to Montana school funding policy and particularly beginning teacher wages. Much may depend on the clarification of one seemingly universal school funding misconception. Many would appear to think that school districts are no different than a private business or government agency; that schools can spend more than the revenue they generate when faced with a budget shortfall. Unfortunately, Keynesian economics do not apply to public school systems. The troubling impact of this misconception on the

future of public education in Montana may be best described by one of the study's participating superintendents who gave the following explanation and warning:

> What people really don't understand is that in public education, we are charged with making our ends meet. We can't run a deficit. So if we no longer have oil and gas revenue to slice and rat-hole in the flexibility fund or what have you, what can you possibly do when you are over a barrel and need money and don't have it…get an INTERCAP loan? Go to your constituents and hit them harder on the permissive levies? It is going to get to a certain tipping point where tax payers are going to start protesting their taxes because they have no say in all this permissive stuff that is going up or down. Really all the past legislative session did was take the state's ownership and responsibility in providing a free and appropriate education and put it on the backs of local tax payers who may or may not have the resources to fund it.

The superintendent's account suggests that while much of the public may lack a thorough understanding of school finance, both their interest and awareness may begin to increase now that they are having to compensate for the state revenue lost during recent legislative changes to school funding policy. In addition, the superintendent appeared to emphasize that many remote and poor school districts might lack the resources to shoulder the additional funding burden. As Baker (2016b) has argued, school districts serving high percentages of impoverished children that are provided "fewer resources" by the state may be "expected to achieve lower [student] outcomes, which may in fact reflect the state's preferences for [student] outcomes" or its "capacity or willingness to support tax policy necessary for achieving those outcomes" (p. 663). Although Judge Sherlock ruled in favor of the defendant in the last major lawsuit brought against the state (Columbia Falls v. State of Montana II, 2008), the defunding of the educator loan repayment program, elimination of the Natural Resource Development and school block grant payments, initial failure to increase GTB, and apparent shift of funding

responsibility from the state to local jurisdictions via permissive levy authority would seem to contradict his recommendation that the declining trend in state aid "should be reversed" (Montana Quality Educator Coalition, n.d.). While the state has agreed to increase its GTB contribution by $32 million in 2018 and possibly up to an additional $71 million by 2021, the legislative changes to school funding policy also increased the statewide local fiscal contribution by $34 million dollars in 2018 with the additional local financing responsibility only projected to decrease to $14 million dollars more than previously funded by 2021 (Montana Legislative Fiscal Division, 2017). Despite the increase in state GTB, the formula's best case scenario suggests local funding would still observe a significant rise above the previously established fiscal level. Since student enrollment appeared to be declining in most of the remote and poor districts in the current study, increased funding per ANB and inflationary adjustments to state entitlements would only seem to maintain the status quo between the state's wealthy and poor districts. Therefore and as previously acknowledged by Judge Sherlock, the results of the current study would seem to question whether the state is doing enough to "alleviate ongoing teacher recruitment and retention issues" in rurally isolated, impoverished school districts and making a genuine "good faith effort" to uphold its constitutional and financial obligation to provide equitable educational opportunity (Montana Quality Educator Coalition, n.d.). Now that the teacher workforce appears to becoming younger (Ingersoll et al., 2014), state policy makers would be wise to remember that any future school funding measure that fails to address the lowest beginning teacher wages in the country would, as Judge Sherlock has suggested (RISE4MT, 2016), merely address

symptoms of the state's teacher staffing problems in remote and poor districts rather than the seeming lifeblood of the crisis itself.

REFERENCES CITED

Adnot, M., Dee, T., Katz, V., & Wyckoff, J. (2016). Teacher turnover, teacher quality, and student achievement in DCPS. *Educational Evaluation and Policy Analysis, 39*(1), 54-76. doi: 10.3386/w21922

Alexander, K., Salmon, R. G., & Alexander, F. K. (2014). *Financing public schools: Theory, policy, and practice*. New York, NY: Routledge.

Allensworth, E., Ponisciak, S., & Mazzeo, C. (June, 2009). *The schools teachers leave: Teacher mobility in Chicago Public Schools*. Retrieved from https://eric.ed.gov/ (ED505882)

Alliance for Excellent Education (2014). *On the path to equity: Improving the effectiveness of beginning teachers* (Issue brief). Retrieved from http://all4ed.org/wp-content/uploads/2014/07/PathToEquity.pdf

Baker, B. D. (2015, January 20). How and why money matters in schools: One more time-updated [Weblog post]. Retrieved from https://schoolfinance101.wordpress.com/2015/01/20/how-and-why-money-matters-in-schools-one-more-time-updated/

Baker, B. D. (2016a). *Does money matter in education* (Policy brief, 2nd ed.)? Retrieved from http://www.shankerinstitute.org/resource/does-money-matter-second-edition

Baker, B. D. (2016b). School finance & the distribution of equal educational opportunity in the postrecession. *Journal of Social Issues, 72*(4), 629-655.

Baker, B. D., Farrie, D., Luhm, T., Sciarra, D., Srikanth, A., & Weber, M. (2018*). Is school funding fair: Montana funding profile*. Retrieved from http://www.schoolfundingfairness.org/is-school-funding-fair/state-funding-profiles

Barnes, G., Crowe, E., Schaefer, B. (2007). *The high cost of teacher turnover* (Policy brief). Retrieved from http://nctaf.org/wp-content/uploads/2012/01/NCTAF-Cost-of-Teacher-Turnover-2007-policy-brief.pdf

Barton, R. (2012, November). Recruiting and retaining rural educators: Challenges and strategies. *Principal's Research Review, 7*(6), 1-6. Retrieved from http://educationnorthwest.org/sites/default/files/resources/Principal%E2%80%99s%20Research%20Review,%20November%202012.pdf

Baumgartner, F. R. & Jones, B. D. (1993). *Agendas and instability in America politics*. Chicago, IL: University of Chicago Press.

Baumgartner, F. R., Berry, J. M., Hojnacki, M., Kimball, D. C., & Leech. B. L. (2009). *Lobbying and policy change: Who wins, who loses, and why.* Chicago, IL: University of Chicago Press.

Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2009). *Who leaves? Teacher attrition and student achievement* (No. 23). Washington, DC: Urban Institute. doi: 10.3386/w14022

Boyd, D., Grossman, P., Ing, M., Lankford, H., Leob, S., & Wyckoff, J. (2010). The influence of school administrators on teacher retention decisions. *American Educational Research Journal, 48*(2), 303-333. doi: 10.3102/0002831210380788

Bracey, G. W. (2006). Poverty's infernal mechanism. *Principal Leadership, 6*(6), 60.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology, 53*, 371–399.

Carroll, T. G. (2007). *The high cost of teacher turnover* (Policy brief). Retrieved from https://nctaf.org/wp-content/uploads/NCTAFCostofTeacherTurnoverpolicybrief.pdf

Chambers, J. G. (1977). The impact of collective bargaining for teachers on resource allocation in public school districts. *Journal of Urban Economics, 4*(3), 324-39.

Chiang, H., Speroni, C., Herrmann, M., Hallgren, K., Burkander, P., & Wellington, A. (2017). *Evaluation of the teacher incentive fund: Final report on implementation and impacts of pay-for-performance across four years* (NCEE 2017-4004). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from https://ies.ed.gov/ncee/pubs/20184004/pdf/20184004.pdf

Chingos, M. M. & Blagg, K. (2017). *Do poor kids get their fair share of school funding?* Retrieved from http://apps.urban.org/features/school-funding-do-poor-kids-get-fair-share/

Class 5 Provisional License (n.d.) Retrieved from http://opi.mt.gov/Class5PL

Constrain [Def. 1a]. (n.d.). In *Merriam-Webster* online. Retrieved December 7, 2018, from https://www.merriam-webster.com/dictionary/constrain

Creswell, J. W. (2007). *Qualitative inquiry: Choosing among the five approaches* (2nd ed.), Thousand Oaks, CA: Sage.

Darling-Hammond, L. (1984). *Beyond the commission reports; The coming crisis in teaching.* Rand Corporation. Santa Monica, CA. Retrieved from https://www.rand.org/content/dam/rand/pubs/reports/2007/R3177.pdf

Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education Policy Analysis Archives, 8*, 1. doi:http://dx.doi.org/10.14507/epaa.v8n1.2000

Davis, S. (2017, January 1). Montana educators cautiously hopeful for teacher recruitment, retention efforts in 2017. *Missoulian*. Retrieved from http://missoulian.com/news/local/montana-educators-cautiously-hopeful-for-teacher-recruitment-retention-efforts-in/article_05155b4b-88d5-5d12-ae9e-65e4530a4ba4.html

Eisner, E. W. (1998). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice*. Upper Saddle River, NJ: Prentice Hall.

Elfers, A. M., Plecki, M. L., & Knapp, M. S. (2006). Teacher mobility: Looking more closely at "the movers" within a state system. *Peabody Journal of Education, 81*(3), 94-127. doi: 10.1207/s15327930pje8103_4

Emergency Authorization of Employment (2016), 10 A.R.M. § 57-107

Farrigan, T. (2017). *Rural poverty & well-being: Child poverty*. Retrieved March 22, 2018 from https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/child-poverty/

Feistritzer, E. C. (2011). *Profile of teachers in the U.S. 2011*. Retrieved from http://www.edweek.org/media/pot2011final-blog.pdf

Ferguson, R. (1991) Paying for public education: New evidence on how and why money matters. *Harvard Journal on Legislation. 28*(2) 465-498.

Fowles, J., Butler, J. S., Cowen, J. M., Streams, M. E., & Toma, E. F. (2014). Public employee quality in a geographic context: A study of rural teachers. *American Review of Public Administration, 44*(5), p. 503-521. doi: https://doi.org/10.1177%2F0275074012474714

Gallagher, M. (2011, October 12). USDA defines food deserts. *Nutrition Digest, 38*(2). Retrieved from http://americannutritionassociation.org/newsletter/usda-defines-food-deserts

Gay, L. R., Mills, G. E., & Airasian, P. W. (2012). *Educational research: Competencies for analysis and applications* (*10th ed.)*. Upper Saddle River, NJ: Pearson.

Goldhaber, D., Gross, B., & Player, D. (2011). Teacher career paths, teacher quality, and persistence in the classroom: Are public schools keeping their best? *Journal of Policy Analysis and Management, 30*, 57–87.

Goldring, R., Taie, S., & Riddles, M. (2014). *Teacher attrition and mobility: Results from the 2012-13 teacher follow-up survey*. Retrieved from https://eric.ed.gov/ (ED546773)

Graham, S. E. & Teague, C. (2011, spring). *Reading levels of rural and urban third graders lag behind their suburban peers* (Issue Brief No. 28). Retrieved from https://scholars.unh.edu/cgi/viewcontent.cgi?article=1135&context=carsey

Gratz, B. (2009, November). The problem with performance pay. *Educational Leadership, 67*(3), 76-79. Retrieved from http://www.ascd.org/publications/educational-leadership/nov09/vol67/num03/The-Problem-with-Performance-Pay.aspx

Gray, L., & Taie, S. (2015). *Public school teacher attrition and mobility in the first five years: Results from the first through fifth waves of the 2007–08 beginning teacher longitudinal study*. Retrieved from https://nces.ed.gov (NCES 2015-337)

Grissmer, D., & Kirby, S. (1987). *Teacher attrition: The uphill climb to staff the nation's schools.* Rand Corporation. Santa Monica, CA. Retrieved from https://eric.ed.gov/ (ED291735)

Grissmer, D., & Kirby, S. (1993). *Teacher attrition: Theory, evidence, and suggested policy options.* Rand Corporation. Santa Monica, CA. Retrieved from https://www.rand.org/content/dam/rand/pubs/papers/2009/P7827.pdf

Grissmer, D., & Kirby, S. (1997). Teacher turnover and teacher quality. *Teachers College Record, 99*, 45–56. Retrieved from https://eric.ed.gov/ (EJ557686)

Guarino, C. M., Santibanez, L., & Daley, G. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of Educational Research, 76*(2), 173-208. doi: 10.3102/00346543076002173

Guin, K. (2004). Chronic teacher turnover in urban elementary schools. *Education Policy Analysis Archives, 12*(42). Retrieved from http://dx.doi.org/10.14507/epaa.v12n42.2004

Hanford, E. (2017, August 28). Schools in poor, rural districts are the hardest hit by nation's growing teacher shortage. *APMreports*. Retrieved from https://www.apmreports.org/story/2017/08/28/rural-schools-teacher-shortage

Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2004). Why public schools lose teachers. *Journal of Human Resources*, 326–354. doi: 10.3386/w8599

Hanushek, E. A., Kain, J. F., O'Brien, D. M., & Rivkin, S. G. (2005). *The market for teacher quality* (No. 11154). Cambridge, MA: National Bureau of Economic Research. doi: 10.3386/w11154

Hanushek E. A., & Rivkin, S. G. (2007). Pay, working conditions, and teacher quality. *Future of Children, 17*(1), 69-96. doi: 10.1353/foc.2007.0002

Hassel, B. C. & Dean, S. (2015). *Technology and rural education*. Retrieved from Rural Opportunities Consortium of Idaho website: http://www.rociidaho.org/wp-content/uploads/2015/03/ROCI_2015_RuralTech_Final.pdf

Hatch, J. A. (2002). *Doing qualitative research in educational settings*. New York: Albany: State University of New York Press.

Henry, G. T., Fortner, K. C., & Bastian, K. C. (2012). The effects of experience and attrition for novice high school science and mathematics teachers. *Science, 335*(6072), 1118-1121. doi: 10.1126/science.1215343

Heyns, B. (1988). Educational defectors: A first look at teacher attrition in the NLS-72. *Educational Researcher, 17*, 24–32. doi: 10.3102/0013189X017003024

Hill, P. T. (2014). *Breaking new ground in rural education*. Retrieved from Rural Opportunities Consortium of Idaho website: http://www.rociidaho.org/wp-content/uploads/2015/01/ROCI_2014NewGround_FINAL_0115.pdf

Hirsch, E. (2004). *Teacher working conditions are student learning conditions: A report to Governor Mike Easley on the 2004 North Carolina teacher working conditions survey*. Retrieved from https://eric.ed.gov/ (ED485954)

Hirsch, E. (2005). *Listening to the experts: A report on the 2004 South Carolina teacher working conditions survey*. Retrieved from https://eric.ed.gov/ (ED485956)

Hirsch, E., Emerick, S., Church, K., & Fuller, E. (2006) *Teaching working conditions are student learning conditions: A report on the 2006 North Carolina teacher working conditions survey*. Retrieved from https://eric.ed.gov/ (ED498770)

Hoffman, M. (2016, October 3). Salary is one obstacle to keeping teachers in Montana's rural schools. *The Billings Gazette*. Retrieved from http://billingsgazette.com/news/local/education/salary-is-one-obstacle-to-keeping-teachers-in-montana-s/article_f6ef3a37-4985-54a5-8262-b92db9d9c876.html

Impossible [Def. 1b]. (n.d.). In *Merriam-Webster* online. Retrieved December 7, 2018, from https://www.merriam-webster.com/dictionary/impossible

Ingersoll, R. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*(3), 499-534. doi: 10.3102/00028312038003499

Ingersoll, R. & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Education Research*, *81*(2), 201–33. http://dx.doi.org/10.3102/0034654311403323

Ingersoll, R. (2012). Beginning teacher induction: What the data tell us. *Phi Delta Kappan 93*(8), 47–51. doi: 10.1177/003172171209300811

Ingersoll, R., Merrill, L., & Stuckey, D. (2014*). Seven trends: the transformation of the teaching force, updated April 2014*. Retrieved from DOI: 10.12698/cpre.2014.rr80

Isenberg, E., Max, J., Gleason, P., Potamites, L., Santillano, R., Hock, H.,…Angelo, L. (2013). *Access to effective teaching for disadvantaged students: Executive summary*. Retrieved from https://eric.ed.gov/ (ED544367)

Johnson, L. D., Mitchel, A. L., & Rotherham, A. J. (2014). *Federal education policy in rural America*. Retrieved from Rural Opportunities Consortium of Idaho website: http://www.rociidaho.org/wp-content/uploads/2015/01/ROCI_2014FedEdPolicy_FINAL_0115.pdf

Johnson, S. M., Berg, J. H., & Donaldson, M. L. (2005). *Who stays in teaching and why: A review of the literature on teacher retention.* Retrieved from http://assets.aarp.org/www.aarp.org_/articles/NRTA/Harvard_report.pdf

Jordan, J. L., Kostandini, G., Mykerezi, E. (2012). Rural and urban high school dropout rates: Are they different? *Journal of Research in Rural Education, 27*(12), 1-21. Retrieved from https://pdfs.semanticscholar.org/60d8/6a840e27686ad4edb15d84bc5d0217997e11.pdf

Kagen, J. (2018). *Mill rate*. Retrieved from www.investopedia.com/terms/m/millrate.asp

Keigher, A. & Cross, F. (2010). *Teacher attrition and mobility: Results from the 2008-09 teacher follow-up study*. Retrieved from https://nces.ed.gov (NCES 2010-353)

Kersaint, G., Lewis, J., Potter, R., & Meisels, G. (2007). Why teachers leave: Factors that influence retention and resignation. *Teaching and Teacher Education, 23*, 775-794. doi: 10.1016/j.tate.2005.12.004

Koball, H., Dion, R., Gothro, A., Bardos, M., Dworsky, A., Lansing, J.,…Manning, A. E. (2011). *Synthesis of research and resources to support at-risk youth*. Retrieved from https://www.acf.hhs.gov/sites/default/files/opre/synthesis_youth.pdf

Lankford, H., Loeb, S., & Wyckoff, J. H. (2002). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis, 24*(1): 37–62. doi: 10.3102/01623737024001037

Lavalley, M. (2018). *Out of the loop: Rural schools are largely left out of the research and policy discussions, exacerbating poverty, inequity, and isolation*. Retrieved from Center for Public Education Website: http://www.centerforpubliceducation.org/system/files/Rural%20School%20Full%20Report.pdf

LeCompte, M. D. & Preissle, J. (1993). *Ethnography and qualitative design in educational research* (2nd ed.). San Diego, CA: Academic Presss.

Levy, A. J., Joy, L., Ellis, P., Jablonski, E., & Karelitz, T. M. (2012). Estimating teacher turnover costs: A case study. *Journal of Education Finance, 38*(2), 102-129. Retrieved from http://www.academia.edu/28947122/Estimating_Teacher_Turnover_Costs_A_Case_Study

Locklear, T. (2010). *Factors contributing to teacher retention in Georgia* (Doctoral dissertation). Retrieved from ERIC database https://eric.ed.gov/ (ED519232)

Loeb, S., Darling-Hammond, L., & Luczak, J. (2005). How teaching conditions predict teacher turnover in California schools. *Peabody Journal of Education, 80*(3), 44-70. Retrieved from http://www.jstor.org/stable/3497042

Loranger, E. and Fraser, J. (2017, November 14). Schools brace for budget cuts, fear more tax shift. *Helena Independent Record*. Retrieved from http://helenair.com/news/politics/state/schools-brace-for-budget-cuts-fear-more-tax-shift/article_12c669ba-d07f-545d-8827-68813a044f2c.html

Ludicrous [Def. 1]. (n.d.). In *Merriam-Webster* online. Retrieved January 29, 2019, from https://www.merriam-webster.com/dictionary/ludicrous

Luekens, M.T., Lyter, D.M., & Fox, E.E. (2004). *Teacher attrition and mobility: Results from the teacher follow-up survey, 2000–01*. Retrieved from https://eric.ed.gov/ (ED483101)

Mann, S., Sponsler, B., Welch, M., & Wyatt, J. (2017). *Advanced placement access and success: How do rural schools stack up?* Retrieved from Education Commission of the States website: https://www.ecs.org/wp-content/uploads/Advanced-Placement-Access-and-Success-How-do-rural-schools-stack-up.pdf

Marŕe, A. (2017). *Rural education at a glance, 2017 edition*. Retrieved from U.S. Department of Agriculture Economic Research Service website: https://www.ers.usda.gov/webdocs/publications/83078/eib-171.pdf?v=42830

Marvel, J., Lyter, D.M., Peltola, P., Strizek, G.A., Morton, B.A., & Rowland, R. (2006). *Teacher attrition and mobility: Results from the 2004–05 teacher follow-up survey*. Retrieved from https://eric.ed.gov/ (ED495344)

McCracken, P., Sankey, L., & Grover, K. (2016). *Final report of the 2015-2016 school funding interim commission*. Retrieved from https://leg.mt.gov/content/Committees/Interim/2015-2016/School-Funding/Meetings/Aug-2016/SFC-FINAL-REPORT.pdf

Merriam, S. B. (Ed.). (2002). Qualitative research in practice. San Francisco, CA: Jossey-Bass.

Mickelson, J. (2016). *Understanding Montana school finance and school district budgets*. Retrieved from http://opi.mt.gov/pdf/SchoolFinance/Budget/UnderstandSchoolFinance.pdf

Mitchell, C. (2018, January). Rural schools often ignored in research and policy discussions [Blog post]. Retrieved from http://blogs.edweek.org/edweek/District_Dossier/2018/01/rural_schools_often_overlooked.html?cmp=eml-enl-eu-news3&M=58353247&U=2453386

Molefe, A., Proger, A., & Burke, M. R. (2017). *Stated briefly: Postsecondary education expectations and attainment of rural and nonrural students*. Retrieved from National Center for Education Statistics website: https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=REL2017233

Monk, D. H. (2007, spring). Recruiting and retaining high-quality teachers in rural areas. *The Future of Children, 17*(1), 155-174. Retrieved from https://files.eric.ed.gov/fulltext/EJ795884.pdf

Montana Board of Public Education (2013, July). *Montana school accreditation standards and procedures*. Retrieved from https://opi.mt.gov/Portals/182/Page%20Files/School%20Accreditation/Standards%20of%20Accreditation/AccreditationStandards_Ch55.pdf

Montana Department of Revenue (2018). *Certified property values and mill levies*. Retrieved February 2, 2019, from https://mtrevenue.gov/property/certified-values-and-levies/

Montana High School Association (2018). *2018 MHSA handbook*. Retrieved from https://cdn1.sportngin.com/attachments/document/0088/8550/2018-19_By-Laws.pdf?_ga=2.188204910.776815778.1552856541-1521761873.1548861912

Montana Legislative Fiscal Division (2017). FY 2016 statewide district general fund budget. Retrieved February 27, 2019, from https://leg.mt.gov/content/Committees/Interim/2017-2018/Education/Meetings/June-2017/Funding%20formula%20changes%202017.pdf

Montana Public Education Center (2016, May 3). *MT-PEC conducts groundbreaking research regarding recruitment and retention of educators in Montana* [Press Release]. Retrieved from https://higherlogicdownload.s3.amazonaws.com/MTSBA/0e64d23d-d17f-46a0-8fd3-8024ab392f9e/UploadedImages/RISE%20elements/MT-PEC%20RISE4Montana.Press%20Release.5.3.2016.pdf

Montana Quality Educator Coalition (n.d.). *School funding history*. Retrieved February 20, 2019, from http://www.mqec.org/school-funding-history/

Morgan, D. L. (1997). *Focus groups as qualitative research (2nd ed.)*. Newbury Park, CA: Sage.

Murnane, R. J. (1981). Teacher mobility revisited. *Journal of Human Resources, 16*(1), 3-19. doi: 10.2307/145216

Murnane, R., Singer, J., & Willett, J. (1988). The career paths of teachers: Implications for teacher supply and methodological lessons for research. *Educational Researcher, 17*(5), 22–30. Retrieved from https://eric.ed.gov/ (EJ379470)

Networking [Def. 1specifically]. (n.d.). In *Merriam-Webster* online. Retrieved November 8, 2018, from https://www.merriam-webster.com/dictionary/networking

Newmann, F., King, M., & Youngs, P. (2000). Professional development that addresses school capacity: Lessons from urban elementary schools. *American Journal of Education, 108*(4), 259-299. Retrieved from http://www.jstor.org/stable/1085442

Next to [Def. adverb]. (n.d.). In *Merriam-Webster* online. Retrieved December 7, 2018, from https://www.merriam-webster.com/dictionary/next%20to

Parson, L., Hunter, C. A., & Kallio, B. (2016). Exploring educational leadership in rural schools. *Planning and Changing, 47* (1), 63-81.

Player, D. (2015, March). *The supply and demand for rural teachers*. Retrieved from Rural Opportunities Consortium of Idaho website: http://www.rociidaho.org/wp-content/uploads/2015/03/ROCI_2015_RuralTeachers_FINAL.pdf

Poach [Def. transitive verb 2c]. (n.d.). In *Merriam-Webster* online. Retrieved December 7, 2018, from https://www.merriam-webster.com/dictionary/poach

Potter, W. J. (1996). *An analysis of the thinking and research about qualitative methods*. Mahwah, NJ: Lawrence Erlbaum.

Preston, J. P., Jakubiec, B. A. E., Kooymans, R. (2013, fall). Common challenges faced by rural principals: A review of the literature. *Rural Educator, 35*(1). Retrieved from Rural Educator website: http://epubs.library.msstate.edu/index.php/ruraleducator/article/view/119

Office of Public Instruction (n.d.). Student count ANB. Retrieved February 5, 2019, from https://opi.mt.gov/Leadership/Finance-Grants/School-Finance/Student-Count-ANB

Quinlan, M. & Furois, S. (2015). *Critical quality educator shortages: Identification of schools and licensure and endorsement areas impacted by critical quality educator shortages for the 2015-16 school year.* Retrieved from http://www.opi.mt.gov/pdf/Cert/CrShortagesNov2015.pdf

Quinlan, M. & Furois, S. (2016). *Critical quality educator shortages: Identification of schools and licensure and endorsement areas impacted by critical quality educator shortages for the 2016-17 school year.* Retrieved from https://gems.opi.mt.gov/SchoolStaffing/Documents/Critical_Quality_Educator_Shortages_-_November_2016_FINAL.pdf

RISE4MT (2016). *Midyear reflection on challenges, opportunities, and progress to date*. Retrieved from http://mt-pec.org/rise4mt/rise4mt-semi-annual-report

RISE4MT (2019). *About us*. Retrieved from https://www.mt-pec.org/rise4montana/aboutus

Rivkin, S., Hanushek, E., & Kain, J. (2005). Teachers, schools and academic achievement. *Econometrica*, *73*(2), 417-458. http://dx.doi.org/10.1111/j.1468-0262.2005.00584.x

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms students achievement. *American Education Research Journal, 50*(1). Retrieved from http://journals.sagepub.com/doi/full/10.3102/0002831212463813

Sanders, W.L., & Rivers, J.C. (1996*). Cumulative and residual effects of teachers on future student academic achievement*. Retrieved from https://www.heartland.org/sites/all/modules/custom/heartland_migration/files/pdfs/3048.pdf

Sass, T. R., Hannaway, J., Xu, Z., Figlio, D. N., & Feng, L. (2012). Value added of teachers in high-poverty schools and lower-poverty schools. *Journal of Urban Economics, 72*, 104-122. doi: 10.1037/e721792011-001

Sawchuk, S. (2018, January). Staffing schools in no-stoplight towns. *Education Week*, *37*(18), 22-23. Retrieved from Education Week website: https://www.edweek.org/ew/articles/2018/01/24/staffing-schools-in-no-stoplight-towns.html

Schaefer, A., Mattingly, M. J., Johnson, K. M. (2016, winter). *Child poverty higher and more persistent in rural America* (Issue Brief No. 97). Retrieved from https://scholars.unh.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1265&context=carsey

Schafft, K. A. (2016). Rural education as rural development: Understanding the rural school—community well-being linkage in a 21st-century policy context. *Peabody Journal of Education*, *91*(2), 137-154. doi: https://doi.org/10.1080/0161956X.2016.1151734

Seabury, C. (2019). *How property taxes are calculated*. Retrieved from https://www.investopedia.com/articles/tax/09/calculate-property-tax.asp

Semantic relation. (n.d.). In *your dictionary* online. Retrieved December 7, 2018, from http://www.yourdictionary.com/semantic-relation

Setup [Noun Def. 8]. (n.d.). In *Merriam-Webster* online. Retrieved January 29, 2019, from https://www.merriam-webster.com/dictionary/setup

Sharratt, L. & Fullan, M. (2009). *Realization: The change imperative for deepening district-wide reform.* Thousand Oaks, CA: Sage. doi: 10.4135/9781452219486

Shields, P. M., Esch, C. E., Humphrey, D. C., Young, V. M., Gaston, M., & Hunt, H. (1999). *The status of the teaching profession: Research findings and policy recommendations*. Retrieved from https://www.wested.org/wp-content/files_mf/139958902632022.stp1999full.pdf

Showalter, D., Klein, R., Johnson, J., & Hartman, S. L. (2017). *Why rural matters 2015-2016: Understanding the changing landscape*. Retrieved from Rural School and Community Trust website: http://www.ruraledu.org/user_uploads/file/WRM-2015-16.pdf

Skinner, E. Garreton, M.T., & Schultz, B.D. (2011). *Grow your own teachers: Grassroots change for teacher education*. New York: Teachers College Press.

Spradley, J. P. (1979). *The ethnographic interview*. New York: Holt, Rinehart, & Winston.

Springer, M. G., Ballou, D., Hamilton, L. S., Vi-Nhuan, L., Lockwood, J. R., McCaffrey, D. F.,…& Stecher, B. M. (2010). *Teacher pay for performance: Experimental evidence from the project on incentives in teaching*. Retrieved from https://www.rand.org/pubs/reprints/RP1416.html.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Stoddard, C. & Young, D. J. (2005). *Recruitment, retention and salaries of teachers and other school personnel in Montana*. Retrieved from http://leg.mt.gov/content/Committees/interim/2005_2006/qual_schools/RecruitmentReport.pdf

Thiede, B C., Hyojung, K., & Valasik, M. (2017*). Concentrated poverty increased in both rural and urban areas since 2000, reversing declines in the 1990s* (Policy brief 129). Retrieved from https://scholars.unh.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1324&context=carsey

Tickle, B. R. (2008). *Public school teachers' perceptions of administrative support and its mediating effect on their job satisfaction and intent to stay in teaching* (Doctoral dissertation). Retrieved from http://hdl.handle.net/10919/28931

Truman, D. B. (1951). *The governmental process: Political interests and public opinion.* New York, NY: Knopf.

U.S. Census Bureau. *Annual estimates of the resident population: April 1, 2010 to July 1, 2016*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

U.S. Department of Education. Title II (2016). *National teacher preparation data: Montana*. Retrieved from https://title2.ed.gov/Public/Report/StateHome.aspx

Walker, D., Greenwood, C., Hart, B., & Carta, J. (1994). Prediction of school outcomes based on early language production and socioeconomic factors. *Child Development, 65*(2), 606–621.

Wikipedia contributors. (2018, April 3). North Dakota oil boom. In *Wikipedia, The Free Encyclopedia*. Retrieved December 12, 2018, from https://en.wikipedia.org/w/index.php?title=North_Dakota_oil_boom&oldid=833962259

Wisconsin Department of Public Instruction (2016, July). *State superintendents working group on school staffing issues*. Retrieved from https://dpi.wi.gov/sites/default/files/imce/tepdl/pdf/FINALReport-StateSuperintendentsWorkingGrouponSchoolStaffingIssues.pdf

Wu, S. (2012). *Using an integrated economical and organizational approach to understand new teacher mobility, attrition and retention* (Doctoral dissertation). Retrieved from http://hdl.handle.net/10125/101554

Yin, R. K. (1994). *Case study research design and methods (2nd ed.)*. Thousand Oaks, CA: Sage.

APPENDICES

APPENDIX A

FOCUS GROUP TABLE OF SPECIFICATIONS

Table of Specifications		
Research Questions	*Focus Group Questions*	*Justification*
RQ1: How do superintendents from rurally isolated, impoverished Montana School Districts describe their experiences with teacher staffing challenges?	**Q1**: Could you tell me a story that describes your experience in recruiting and retaining quality teachers in your district? **Q2**: Show a picture of students taking a test followed by the question: How does this picture apply to teacher recruitment and retention in your school district?	**Q1** is based on RISE4MT (2016) which found 59% of the superintendents surveyed believed that the overall quality of a typical teacher applicant pool had declined over the past five years. **Q2** is based on Isenberg et al. (2013) who found that students of schools who struggle to adequately staff their classrooms scored lower on state standardized tests than peers in schools with more consistent staffing.
RQ2: How do superintendents from rurally isolated, impoverished Montana School Districts describe their experience of the impact of Montana school funding policy on teacher staffing?	**Q1**: Pull some dollar bills from my wallet and show to the group followed by the question: How does this apply to your school district's ability to recruit and retain quality teachers?	**Q1** is based on Stoddard & Young's (2005) Montana study which found low teacher salary to be correlated with school district geographic isolation. These districts were also found to experience the most difficulty hiring teachers, the worst teacher turnover, and the highest percentage of misassigned teachers in the state.

FOCUS GROUP TABLE OF SPECIFICATIONS CONTINUED

RQ3: How do these superintendents' descriptions of their experiences with both teacher staffing challenges and school funding policy align with the 2016 RISE4MT data trends?	***NA***	Research question is based on RISE4MT (2016). Focus group responses pertaining to RQ1 and RQ2 will be used for comparison analysis with the RISE4MT data.

APPENDIX B

CASE STUDY TABLE OF SPECIFICATIONS

Table of Specifications		
Research Questions	*Interview Questions*	*Justification*
RQ1: How do superintendents from rurally isolated, impoverished Montana School Districts describe their experiences with teacher staffing challenges?	**Q1**: How have teacher staffing challenges affected your school district's: • professional development focus • staff team building • school program cohesiveness **Q2**: How does replacing an exiting teacher impact your school district financially? **Q3**: How much administrative time and personnel is devoted to replacing an exiting teacher in your school district? **Q4**: How has teacher turnover affected the overall quality of teachers in your school district? **Q5**: How are student outcomes affected by teacher turnover in your school district?	**Q1 & Q3** are based on findings from Guin (2004) and Shields et al. (1999) which were the first studies to expose the impact of teacher turnover on a school's organizational functioning. **Q2** is based on findings from a national representative study by Ingersoll & Perda (in press) which estimated the cost of teacher turnover in Montana to be $4 to $9 million per year. **Q4** is based on Barnes et al. (2007) which found that low-preforming and high-poverty schools had lower overall teacher quality as a result of teacher turnover as well as a finding in RISE4MT (2016) in which 59% of the superintendents surveyed believed that the overall quality of a typical teacher applicant pool had declined over the past five years. **Q5** is based on Isenberg et al. (2013) who found that students of schools who struggle to adequately staff their classrooms scored lower on state standardized tests than peers in schools with more consistent staffing.

CASE STUDY TABLE OF SPECIFICATIONS CONTINUED

Table of Specifications		
Research Questions	*Interview questions*	*Justification*
RQ2: How do superintendents from rurally isolated, impoverished Montana School Districts describe their experience of the impact of Montana school funding policy on teacher staffing?	**Q1**: How does current Montana school funding policy affect your school district's ability to recruit and retain teachers? **Q2**: What, if any, are barriers to school funding policy reform at the state level? **Q3**: How could Montana school funding policy be improved to address the needs of school districts like yours?	All questions are based on: • Baumgartner & Jones (1993) Punctuated Equilibrium Social Theory which argues policy does not change unless a dramatic shift in social perspective occurs. • Stoddard & Young's (2005) Montana study which found low teacher salary to be correlated with school district geographic isolation. These districts were also found to experience the most difficulty hiring teachers, the worst teacher turnover, and the highest percentage of misassigned teachers in the state. • Baker's (2015) model of the relationship between school resources and student outcomes. • Alexander et al. (2015) description of stability politics in school finance.

CASE STUDY TABLE OF SPECIFICATIONS CONTINUED

RQ3: How do these superintendents' descriptions of their experiences with both teacher staffing challenges and school funding policy align with the 2016 RISE4MT data trends?	***NA***	Research question is based on RISE4MT (2016). Interview responses pertaining to RQ1 and RQ2 will be used for comparison analysis with the RISE4MT data.

APPENDIX C

FOCUS GROUP PROTOCOL

Title: The Space Between: The Plight of Rurally Isolated Montana School Districts

Date: _____ **Group Interviewed**: _____

Introduction

Good (morning or afternoon). My name is Josh Patterson and I'm an Ed. Leadership doctoral candidate at MSU, Bozeman. I'd like to thank you for taking time out of your busy schedule to participate in this focus group today. Like you, I once was a superintendent for a rurally isolated, impoverished Montana school district. The purpose of this focus group today is to gain your unique perspective on two topics: 1) your experience of teacher recruitment and retention challenges in your district and 2) your experience of Montana school funding policy in relation to teacher staffing. There is not any right or wrong or desirable or undesirable answers. I would like you to feel comfortable with saying what you really think and how you really feel. All information from this interview will be confidential. You will not be identified by name, location, or place of employment in this study or in any report of this study. You can leave the focus group at any time. I will be audio recording our discussion to allow me to carry on a conversation with you while still collecting the substance for later intensive review. I have passed around a consent form that by signing provides your permission to participate in this research. Please take a few minutes to read the form and indicate whether you choose to participate. When finished, please pass all signed and unsigned forms to the front of the room where I will collect them.

Two Ground Rules

1. *One Speaker at a Time* – Only one person should speak at a time in order to make sure that we can all hear what everyone is saying.
2. *Participation is Important* – It is important that everyone's voice is shared and heard in order to make this the most productive focus group possible. Please speak up if you have something to add to the conversation!

FOCUS GROUP PROTOCOL CONTINUED

Questions

If I have everyone's signed consent form that wishes to participate, we will go ahead and begin. For transcription purposes, be sure to give the name of your school before speaking.

1. Could you tell me a story that describes your experience in recruiting and retaining quality teachers in your district?

2. Show a picture of students taking a test followed by the question: How does this picture apply to teacher recruitment and retention in your school district?

3. Pull some dollar bills from my wallet and show to the group followed by the question: How does this apply to your school district's ability to recruit and retain quality teachers?

Thank you for your time and participation in this research. If you have any further comment on this topic or if a new thought comes to mind in the near future, please feel free to share with me via email at joshua.patterson15@gmail.com.

APPENDIX D

CASE STUDY INTERVIEW PROTOCOL

Title: The Space Between: The Plight of Rurally Isolated Montana School Districts

Date: _____ **Individual Interviewed**: _____

Introduction

Good (morning or afternoon). Thank you for taking the time to participate in this interview today. The purpose of this interview is to gain your unique perspective on two topics: 1) your experience of teacher recruitment and retention challenges in your district and 2) your experience of Montana school funding policy in relation to teacher staffing. There is not any right or wrong or desirable or undesirable answers. All information from this interview will be confidential. You will not be identified by name, location, or place of employment in this study or in any report of this study. You can or stop the interview at any time. I will be audio recording our discussion to allow me to carry on a conversation with you while still collecting the substance for later intensive review. By signing the consent form, you acknowledge your agreement to participate in this research.

Questions

1. How have teacher staffing challenges affected your school district's (ask each one at a time):
    a. professional development focus
    b. staff team building
    c. school program cohesiveness

2. How does replacing an exiting teacher impact your school district financially? (If necessary, ask if their answer includes money spent on PD for the new teachers, money needed to attend and travel to career fairs, money spent to post vacancy on teachers-teachers or similar job website, compensation for applicants traveling long distances to interview, etc.)

3. How much administrative time and personnel is devoted to replacing an exiting teacher in your school district? (If necessary, ask if their answer includes time spent advertising vacant position, clerk time processing applicant docs, time spent at and traveling to career fairs, time needed for induction or mentor teacher, etc.)

4. How has teacher turnover affected the overall quality of teachers in your school district? (If necessary, refer back to RISE4MT finding - 59% of MT Supers felt quality of teacher app pool declined over past five years)

CASE STUDY INTERVIEW PROTOCOL CONTINUED

5. How are student outcomes affected by teacher turnover in your school district? (If necessary, refer to research showing decline in student test scores)

6. How does current Montana school funding policy affect your school district's ability to recruit and retain high quality teachers?

7. What, if any, are barriers to school funding policy reform at the state level? How does X impede policy reform?

8. How could Montana school funding policy be improved to address the needs of school districts like yours?

Thank you for your time and participation in this research. If you have any further comment on this topic or if a new thought comes to mind in the near future, please feel free to share with me via email at joshua.patterson15@gmail.com.

APPENDIX E

CASE STUDY INTERVIEW FOLLOWUP QUESTIONS

1. If I were a potential teacher applicant, how would you sell me your district? What are the benefits of living in your district?

2. Describe housing within your district. Is there enough housing to satisfy demand? How do teachers perceive the cost of housing in your district?

3. If you have ever had to hire a retired teacher to fill a vacant teaching position in your district, can you explain the situation that led to that decision?

4. If you have had to use an emergency license to fill a vacant teaching position in your district, can you explain the situation that led to that decision?

5. If you have ever lost a teacher to another school district, can you explain why you think that teacher decided to leave your district?

6. If your district has a low taxable value or limited tax base, can you explain how that impacts teacher staffing in your district?

APPENDIX F

Table 2. East focus group semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Few teacher applicants	Attribution (X is a characteristic of Y)	School Districts
Out-of-state applicant		
Low quality applicant		
Creative staffing practices		
Frequent teacher turnover		
Limited academic program continuity		
Praxis test	Function (X is used for Y)	Assessing Subject Matter Knowledge
Creative staffing practice	Function (X us used for Y)	Improving Teacher Applicant Pool
Class five license	Function (X is used for Y)	Provisionally Licensing Non-Qualified Individual
Praxis test	Strict Inclusion (X is a kind of Y)	Test for Teacher Certification
Creative staffing practice	Strict Inclusion (X is a kind of Y)	Unconventional Approach to Teacher Recruitment
Class five license	Strict Inclusion (X is a kind of Y)	Short-Term Teacher License
Paying to add endorsement	Strict Inclusion (X is a kind of Y)	Creative Staffing Practice
Paying for local resident to become teacher		
Use of Provisional license to hire individual		

APPENDIX G

Table 3. East focus group semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Few teacher applicants	Cause Effect (X is a result of Y)	Geographic Isolation
Out-of-state applicants		
Low quality applicants		
Reliance on provisionally licensed staff		
Limited school program continuity	Cause Effect (X is a result of Y)	Staffing Challenges
Creative staffing practices	Means End (X is a way to do Y)	Improve School Program Continuity
Creative staffing practices	Means End (X is a way to do Y)	Improve Student Outcomes
Improving teacher retention	Sequence (X is a step in Y)	Improving School Program Continuity
Improving school program continuity	Sequence (X is a step in Y)	Improving Student Outcomes
Improving quality of new teacher hires	Rationale (X is a reason for doing Y)	Creative Staffing Practices
Improving teacher retention		
Improving school program continuity		
Improving student outcomes		
Minimizing effect of geographic isolation		

APPENDIX H

Table 4. East focus group semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Sense of frustration	Attribution (X is a characteristic of Y)	Superintendents
Superintendents' sense of frustration	Cause Effect (X is a result of Y)	Staffing Challenges

APPENDIX I

Table 5. East focus group semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Uncompetitive teacher compensation	Attribution (X is a characteristic of Y)	School Districts
Combined classes		
Fewer programs/activities		
Limited housing		
Sense of frustration and disadvantage	Attribution (X is a characteristic of Y)	Superintendents
Uncompetitive teacher compensation	Cause Effect (X is a result of Y)	Limited Funding
Loss of school programs or activities		
Combined classes		
Sense of frustration and disadvantage		
Staffing challenges	Cause Effect (X is a result of Y)	Limited Housing
Uncompetitive teacher compensation	Rationale (X is a reason for doing Y)	Not Applying to District
Limited housing		
Limited funding	Rationale (X is a reason for doing Y)	Cutting School Programs/Activities
Limited funding	Rationale (X is a reason for doing Y)	Combining Classes

APPENDIX J

Table 6. East focus group semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Student loan forgiveness	Means End (X is a way to do Y)	Address Staffing Challenges
Teacher housing		
Signing incentives		
Reducing staffing challenges	Rationale (X is a reason for doing Y)	Hiring Incentives

APPENDIX K

Table 7. East superintendent one semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Few teacher applicants for high school	Attribution (X is a characteristic of Y)	School District
Out-of-state teacher applicants		
Professional development favoring new teachers		
Limited staff quality		
Suppressed student outcomes		
Lack of social appeal and amenities		
Recruit teachers that want to live rurally		
Creative recruiting practice		
Supportive community		
Few student behavioral issues		
Safe community		
Supportive school administration		
Outdoor recreational opportunities		

APPENDIX L

Table 8. East superintendent one semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Lack of staffing challenges in the elementary school	Cause Effect (X is a result of Y)	Community Ties
Limited collective teacher quality	Cause Effect (X is a result of Y)	Frequent Turnover
Suppressed student outcomes		
PD favoring new teachers		
Limited social opportunity and amenities	Cause Effect (X is a result of Y)	Geographic Isolation
Low number of teacher applicants		
Limited staff quality		
Suppressed student outcomes		
Creative recruiting practices	Means End (X is a way to do Y)	Recruit Teachers
Frequent teacher turnover	Rationale (X is a reason for doing Y)	Creative Recruiting Practices
Frequent teacher turnover	Rationale (X is a reason for doing Y)	PD Focused on New Teachers

APPENDIX M

Table 9. East superintendent one semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Limited funding	Attribution (X is a characteristic of Y)	School District
Small student enrollment		
Combined classes		
Reduction in force (RIF)		
High cost of living		
Limited housing		
Reduction in force (RIF)	Strict Inclusion (X is a kind of Y)	Staffing Function
Reduction in force (RIF)	Function (X is used for Y)	Reduction of Staff
Sense of frustration, hopelessness, and disadvantage	Attribution (X is a characteristic of Y)	Superintendent
High cost of living	Cause Effect (X is a result of Y)	Geographic Isolation
Frequent teacher turnover	Cause Effect (X is a result of Y)	Limited Housing
Uncompetitive teacher compensation	Cause Effect (X is a result of Y)	Limited Funding
Staffing challenges		
Sense of frustration, hopelessness, and disadvantage		

APPENDIX N

Table 10. East superintendent one semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Offering competitive teacher compensation	Means End (X is a way to do Y)	Recruit and Retain High Quality Teachers
RIF and combined classes	Means End (X is a way to do Y)	Meet District Financial Obligations
Funding policy less reliant on student enrollment	Means End (X is a way to do Y)	Level Playing Field
Limited funding	Rationale (X is a reason for doing Y)	Staff Reduction Measures
Uncompetitive teacher compensation	Rationale (X is a reason for doing Y)	Not Appling to District
Leveling the playing field	Rationale (X is a reason for doing Y)	School Funding Reform

APPENDIX O

Table 11. East superintendent two semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Few teacher applicants	Attribution (X is a characteristic of Y)	School District
Low quality teacher applicants		
Frequent teacher turnover		
Limited school program continuity		
New teacher mentoring challenges		
Limited staff quality		
Limited housing		
Ranch related activities		
Paleontology opportunities		
Outdoor recreational activities		
Near retirement	Attribution (X is a characteristic of Y)	Teachers Prone to Turnover
Transient		
Sense of hopelessness	Attribution (X is a characteristic of Y)	Superintendent

APPENDIX P

Table 12. East superintendent two semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Few teacher applicants	Cause Effect (X is a result of Y)	Limited Housing
Limited staff quality	Cause Effect (X is a result of Y)	Frequent Staffing Challenges
Limited school program continuity		
New teacher mentoring challenges		
Concern about future student outcomes		
Sense of hopelessness		

APPENDIX Q

Table 13. East superintendent two semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Uncompetitive teacher compensation	Attribution (X is a characteristic of Y)	School District
Small and declining student enrollment		
Sense of frustration, hopelessness, and disadvantage	Attribution (X is a characteristic of Y)	Superintendent
Limited Funding	Cause Effect (X is a result of Y)	Declining Student Enrollment
Uncompetitive teacher compensation	Cause Effect (X is a result of Y)	Limited Funding
Limited allowance of prior experience toward pay scale		
Staffing challenges		
Sense of frustration, hopelessness, and disadvantage		
Few teacher applicants	Cause Effect (X is a result of Y)	Uncompetitive Teacher Compensation
Competitive compensation	Means End (X is a way to do Y)	Recruit and Retain High Quality Teachers
Funding policy less reliant on student enrollment	Means End (X is a way to do Y)	Level the Playing Field
Natural resource development	Means End (X is a way to do Y)	Pay for Funding Equalization

APPENDIX R

Table 14. East superintendent two semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Uncompetitive teacher compensation	Rationale (X is a reason for doing Y)	Not Applying to District
Leveling the playing field	Rationale (X is a reason for doing Y)	School Funding Reform

APPENDIX S

Table 15. West focus group semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Few teacher applicants Hiring retired teachers Use of emergency license Losing teachers to other districts Less desirable geographic location Creative staffing practices	Attribution (X is a characteristic of Y)	School Districts
Emergency license	Function (X is used to do Y)	Hire Non-Qualified Individual
Emergency license	Strict Inclusion (X is a kind of Y)	Teacher License
Use of new teachers as recruiters Converting teachers to fill positions in advance of known retirements	Strict Inclusion (X is a kind of Y)	Creative Staffing Practice
Hiring retired teachers Use of emergency license	Cause Effect (X is a result of Y)	Inability to Attract Teachers Applicants
Staffing challenges	Cause Effect (X is a result of Y)	Less Desirable Geographic Location

APPENDIX T

Table 16. West focus group semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Use of new teachers as recruiters	Means End (X is a way to do Y)	Recruit Teachers
Application of creative staffing practices	Means End (X is a way to do Y)	Fill Teaching Positions
Inability to attract teacher applicants	Rationale (X is a reason for doing Y)	Hiring Retired Teachers & Use of Emergency License
Limited teacher applicant pool	Rationale (X is a reason for doing Y)	Creative Staffing Practices

APPENDIX U

Table 17. West focus group semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Limited tax base Uncompetitive teacher compensation Limited housing	Attribution (X is a characteristic of Y)	School Districts
Sense of frustration, hopelessness, and disadvantage	Attribution (X is a characteristic of Y)	Superintendents
Mill Property's taxable value	Function (X is used to do Y)	Calculate Property Taxes
Mill	Strict Inclusion (X is a kind of Y)	Measurement Unit
Limited funding	Cause Effect (X is a result of Y)	Limited Tax Base
Staffing challenges	Cause Effect (X is a result of Y)	Limited Funding
Staffing challenges	Cause Effect (X is a result of Y)	Limited Housing
Sense of frustration, hopelessness, and disadvantage	Cause Effect (X is a result of Y)	Limited Funding

APPENDIX V

Table 18. West focus group semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Competitive compensation	Means End (X is a way to do Y)	Recruit & Retain Teachers
State teacher salary schedule	Means End (X is a way to do Y)	Level the Playing Field
Leveling the playing field	Rationale (X is a reason for doing Y)	School Funding Reform

APPENDIX W

Table 19. West superintendent one semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Frequent teacher turnover	Attribution (X is a characteristic of Y)	School District
PD focused on new teachers		
Reliance on provisionally licensed staff		
Less desirable geographic location		
Improved staff quality		
Rising student outcomes		
Hire teachers from small MT towns or with ties to county		
Ample technology		
Teacher friendly school culture		
Safe outdoor recreational community		

APPENDIX X

Table 20. West superintendent one semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Heavy teacher attrition	Cause Effect (X is a result of Y)	Mass Teacher Retirements
Improved staff quality Rising student outcomes	Cause Effect (X is a result of Y)	Hiring High Quality Teachers
PD focused on new teachers	Cause Effect (X is a result of Y)	Frequent Teacher Turnover
Reliance on provisionally licensed staff	Cause Effect (X is a result of Y)	No Quality Applicants
Lack of quality applicants	Cause Effect (X is a result of Y)	Less Desirable Geographic Location
Staffing challenges	Rationale (X is a reason for doing Y)	Provisional Licenses
Frequent teacher turnover	Rationale (X is a reason for doing Y)	New Teacher Focused PD

APPENDIX Y

Table 21. West superintendent one semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Lose teachers to higher paying district	Attribution (X is a characteristic of Y)	School District
Uncompetitive teacher compensation		
Limited funding		
Limited housing		
Sense of disadvantage	Attribution (X is a characteristic of Y)	Superintendent
Lose teachers to higher paying district	Cause Effect (X is a result of Y)	Limited Funding
Uncompetitive teacher compensation		
Staffing challenges		
Staffing challenges	Cause Effect (X is a result of Y)	Limited Housing
Sense of disadvantage	Cause Effect (X is a result of Y)	Limited Funding

APPENDIX Z

Table 22. West superintendent one semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Competitive teacher compensation	Means End (X is a way to do Y)	Recruit & Retain Teachers
Quality and affordable housing		
Additional targeted state funding	Means End (X is a way to do Y)	Improve Teacher Staffing
Funding policy less reliant on student enrollment	Means End (X is a way to do Y)	Compensate for Unanticipated Staffing Needs
Staffing challenges	Rationale (X is a reason for doing Y)	Additional Targeted State Funding
Limited housing		
Leveling the playing field	Rationale (X is a reason for doing Y)	School Funding Reform

APPENDIX AA

Table 23. West superintendent two semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Few teacher applicants	Attribution (X is a characteristic of Y)	School District
Unfilled teacher positions		
Loss of school programs		
Reliance on retired teachers		
Reliance on emergency licensed teachers		
Frequent teacher turnover		
Use of MDA in place of teacher		
Limited staff quality		
Suppressed student outcomes		
Geographic isolation		
Creative recruiting practice		
Four day school week		
Central location		
Flexible school administration		
Small class sizes		
Few student disciplinary problems		

APPENDIX BB

Table 24. West superintendent two semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
MDA	Function (X is used for Y)	Delivery of Web-Based Academic Courses
MDA	Strict Inclusion (X is a kind of Y)	State Administered Online Education Provider
Unfilled teacher positions Loss of school programs Reliance on retired teachers Reliance on emergency licensed staff	Cause Effect (X is a result of Y)	Inability to Attract Teachers
Use of MDA in place of a teacher	Cause Effect (X is a result of Y)	Inability to Retain Teachers
Limited staff quality Limited academic program continuity Suppressed student outcomes	Cause Effect (X is a result of Y)	Frequent Teacher Turnover

APPENDIX CC

Table 25. West superintendent two semantic relationships for experience with staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Unfilled teacher positions	Rationale (X is a reason for doing Y)	Dropping School Programs
Unfilled teacher positions	Rationale (X is a reason for doing Y)	Hiring Staff with an Emergency License
Unfilled teacher positions	Rationale (X is a reason for doing Y)	Hiring Retired Teachers
Frequent teacher turnover	Rationale (X is a reason for doing Y)	MDA in Place of Teacher
Few applicants and frequent turnover	Rationale (X is a reason for doing Y)	Creative Recruiting Practice

APPENDIX DD

Table 26. West superintendent two semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Limited tax base	Attribution (X is a characteristic of Y)	School District
Limited funding		
Uncompetitive teacher compensation		
Lose teachers to higher paying districts		
Use of RIF		
Higher than expected cost of living		
Limited housing		
Sense of frustration & disadvantage	Attribution (X is a characteristic of Y)	Superintendent
GTB	Function (X is used to do Y)	Supplement Local Revenue Generating Capacity
GTB	Strict Inclusion (X is a kind of Y)	Funding Equalization Mechanism

APPENDIX EE

Table 27. West superintendent two semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Limited funding	Cause Effect (X is a result of Y)	Limited Tax Base
Uncompetitive teacher compensation	Cause Effect (X is a result of Y)	Limited Funding
Staffing challenges		
RIF		
Sense of frustration and disadvantage		
Staffing challenges	Cause Effect (X is a result of Y)	Uncompetitive Teacher Compensation
Higher than expected cost of living	Cause Effect (X is a result of Y)	Geographic Isolation
Staffing challenges		
Staffing challenges	Cause Effect (X is a result of Y)	Limited Housing

APPENDIX FF

Table 28. West superintendent two semantic relationships for experience of the impact of school funding policy on staffing challenges

Included Term	*Semantic Relationship*	*Cover Term*
Competitive teacher compensation	Means End (X is a way to so Y)	Recruit and Retain Teachers
More funding per student	Means End (X is a way to do Y)	Level Playing Field
Additional state funding for rural districts		
State teacher salary schedule		
Limited funding	Rationale (X is a reason for doing Y)	Reduction in Force (RIF)
Uncompetitive teacher compensation	Rationale (X is a reason for doing Y)	Leaving School District
Uncompetitive teacher compensation	Rationale (X is a reason for doing Y)	Not Appling to School District
Geographic isolation		
Limited housing		
Leveling the playing field	Rationale (X is a reason for doing Y)	School Funding Reform