EMBEDDED IN EDUCATION: EXPLORING RURAL REMOTE TEACHERS' PERSPECTIVES OF CONNECTION ON ATTRACTION, RETENTION, AND ATTRITION IN SOUTHEASTERN MONTANA SCHOOLS

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree

of

Doctor of Education

in

Curriculum & Instruction

MONTANA STATE UNIVERSITY
Bozeman, Montana

August 2025

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DEDICATION

To my husband, Kirk — thank you for being my rock, my proof-reader, and my constant support. To my kids — your encouragement, humor, and perfectly timed “you got this” texts meant more than you know. To my family — thank you for cheering me on through every step (and every rewrite). And to my co-workers — keeping me caffeinated and never asking too many questions about my deadline meltdowns. Your flexibility, understanding, and humor made balancing work and writing a little more doable and a lot more enjoyable. I couldn’t have done this without all of you.

ACKNOWLEDGMENTS

I would like to express my deepest gratitude to Dr. Jayne Downey — thank you for being more than just an advisor. Your guidance, patience, and thoughtful feedback have not only shaped this dissertation but have also shaped me as a scholar and a person. Your encouragement during the moments I doubted myself meant the world, and your belief in my work gave me the confidence to see it through.

To my committee, thank you for your time, insights, and thoughtful questions that challenged and strengthened my work. Dr. Sarah Pennington, Dr. Nick Lux, Dr. Joe Hicks, and Dr. Jayne Downey, each of you brought a unique perspective that helped stretch my thinking, refine my arguments, and strengthen this work. I am truly grateful for your honest feedback, your academic rigor, and your support throughout this journey. I'm endlessly grateful to each of you. It wasn't easy, but it was made possible (and meaningful) thanks to all of you.

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ABSTRACT

Rural remote schools face persistent challenges in attracting and retaining qualified teachers, particularly in geographically isolated areas such as Southeastern Montana. A critical gap exists in understanding the perspectives of rural remote teachers themselves—insight that is essential to developing sustainable and equitable strategies for teacher retention. This study explored the perspectives of K–8 teachers in Southeastern Montana to identify the embeddedness factors that influence their decisions to accept and remain in rural remote teaching positions. Drawing on the Teacher Embeddedness Framework (Larkin et al., 2021), this research examined how individual, organizational, and community factors interact to shape long-term teacher commitment.

A qualitative case study approach was used, involving semi-structured interviews with current and former rural remote teachers. Participants were purposefully selected based on school location and employment history. Interview data were coded thematically within six embeddedness factors: fit, links, assets of both school and community.

Findings highlight that teacher attraction and retention are strongly influenced by supportive school culture, meaningful relationships with students and families, and a sense of belonging within the community. Leadership practices played a pivotal role—teachers were more likely to stay when school leaders fostered inclusive environments, respected teacher voice, and maintained open communication. Early-career and alternatively certified teachers benefited from structured mentorship, while community partnerships and supports. Conversely, teachers who left often cited misalignment with school values, lack of support, and financial strain. The study concludes that addressing teacher attraction and retention in rural remote schools requires a multi-layered approach that acknowledges both emotional and structural factors.

CHAPTER ONE

INTRODUCTION

Introduction

The teacher shortage crisis is a present and pressing reality that threatens the stability and quality of education systems worldwide. According to the United Nations Educational, Scientific and Cultural Organization, UNESCO, Institute for Statistics (2024), the world needs nearly 44 million new teachers to meet the 2030 education goals. The global teacher shortage has far-reaching consequences, including increased workloads, potential deterrence of future educators, and a cycle of low-quality education that perpetuates educational inequalities (UNESCO, 2024, p. 30). The United States is experiencing a nationwide teacher shortage, which has had a particularly significant impact on rural areas (Nguyen et al., 2019). This shortage not only hampers students' educational progress but also exacerbates the disparities between rural and urban communities. As highlighted by Nguyen et al., retaining high-quality teachers is essential for both student achievement and the long-term health of the education system and workforce in rural areas. Teachers are fundamental to public education, making their recruitment and retention a critical priority, especially in rural schools and communities.

This chapter provides an overview of the research surrounding the rural teacher shortage through both historical and current lenses. Additionally, it presents findings from studies which have been primarily focused on the teacher shortage in urban schools and reveals the need for more in-depth studies of factors which are most relevant to rural contexts to more fully grasp the complexities of the teacher shortage crisis. While systemic issues in urban contexts have been

extensively examined, the firsthand experiences of new classroom teachers, particularly those situated in remote settings, remain underrepresented in research.

Rural Teacher Shortage: Historical Context

The challenge of recruiting teachers for rural schools in the United States has been a longstanding issue (Biddle & Azano, 2016). The literature reveals that over a century ago, in the early 1900s, rural schools faced significant challenges in recruiting and retaining qualified teachers. This difficulty was largely attributed to teachers' perceptions of rural America as tradition-bound and parochial (e.g., Foght, 1912; Gray, 1916; Hillyer, 1916). Rural school districts struggled to compete with the modern amenities and opportunities offered by urban centers, including physical comforts, intellectual stimulation, spiritual growth, and social activities (Hillyer, 1916). Documents from this time period identified numerous factors contributing to the challenge of recruiting and hiring rural teachers, including a lack of qualified teachers, short school terms, inadequate facilities, frequent teacher turnover, small class sizes, limited social opportunities, inconvenient housing, and a disconnect between teachers and their communities (Dewey, 1910). Throughout this period, there was a consistent emphasis on the need for "carefully trained and experienced teachers" in rural schools (Dewey, 1910). To attract and retain educators in these areas, advocates proposed various incentives, such as providing teacher housing or offering additional benefits. These discussions highlighted the tension between the appeal of rural life and the allure of modern amenities (Biddle & Azano, 2016).

Rural Teacher Shortage: Current Context

Drawing on historical research highlighting the importance of teacher quality and retention in rural schools, contemporary studies have identified a range of factors that continue to influence rural schools' ability to attract and retain educators. Rural schools continue to face unique challenges, including limited resources, geographic isolation, and smaller student populations. These factors can lead to fewer professional collaboration opportunities and increased teaching responsibilities, making it harder for rural schools to compete with urban schools in attracting and retaining teachers (Gagnon & Mattingly, 2015).

High teacher attrition rates, which negatively impact student learning, strain school budgets, and undermine community trust in the education system, are detrimental to the quality, stability, and well-being of rural schools (Ingersoll & Tran, 2023). Furthermore, consistent and experienced teachers are essential for developing and maintaining effective instructional practices, building strong relationships with students and parents, and fostering a positive school culture (Darling-Hammond, 2003). In rural areas, teacher retention is particularly important as schools often serve as community centers. The loss of teachers can have far-reaching social and economic consequences, such as decreased student achievement, higher dropout rates, and reduced educational opportunities for students in rural communities (Ingersoll & Tran 2023). These negative outcomes can further exacerbate the challenges faced by rural schools in recruiting and retaining qualified educators, creating a cycle that perpetuates educational inequities. (Schwartzbeck, 2003).

Despite these challenges, some educators are drawn to rural communities, and many thrive in these environments. For example, one study conducted by through the University of

Arizona College of Medicine-Phoenix, examined the factors which attracted teaching physicians to rural communities and found that smaller class sizes, the opportunity to make a significant impact on students' lives, and a general sense of community, were powerful motivators for educators to choose a rural position (Alexandraki et al., 2023). Another study in England found that professional support, job satisfaction, personal considerations, and community integration helped create environments that encourage rural teachers to remain in their positions (Arthur & Bradley, 2023). Davis (2002) found that rural teachers in Montana valued the rural lifestyle, student relationships, and a safe environment. These factors significantly influenced their decisions to accept employment and remain in their schools.

Consequences of the Rural Teacher Shortage

The current teacher shortage in rural areas is a pressing issue with significant consequences. Due to the unique challenges of attracting and retaining educators in rural settings, many schools are struggling to fill teaching positions (Espinoza et al., 2018). High teacher turnover rates can disrupt the continuity of instruction and create instability within schools (Ronfeldt, et al., 2013). In rural areas, where school closures are more common due to teacher shortages, the loss of the school as a vital community institution can have significant social and economic implications (Garcia & Weiss, 2019).

Efforts to mitigate the rural teacher shortage must investigate rural teachers' perspectives to foster positive change and sustainability in rural education. Neglecting teachers' perspectives in rural education is a significant oversight that is crucial for attracting and retaining educators. By listening to teachers and addressing their specific needs and values, rural schools may be able to create environments that foster satisfaction, commitment, and long-term retention.

Purpose of Study

Previous research exploring teacher attraction and retention has found that teachers' decisions and experiences are shaped by a variety of factors, including individual experiences (Sutcher & Darling-Hammond, 2019), community dynamics, (Ingersoll & Smith, 2003), and professional challenges (Hoy & Spero, 2005). All of which contribute to the complexity of understanding their decisions to enter, remain, or leave the profession. However, most studies have focused on urban and suburban settings (Sutcher & Darling-Hammond, 2019), with less attention paid to identifying factors most relevant to the attraction and retention of teachers in rural areas.

While innovative efforts have been crafted to recruit and retain teachers for rural schools (e.g., Barbosa Jr. & Coneway, 2023), there persists a critical gap in understanding the factors that influence attraction, retention, and attrition for rural remote teachers. Specifically, there is a need to know more about the various aspects of connections to school and community that draw teachers to remote settings and influence their decisions to stay or leave. This research gap hinders the development of tailored strategies and policies that would help to alleviate rural remote teacher shortages, improve educational quality for rural students, and support thriving rural communities. To address this gap, this study will examine factors influencing rural remote teacher attraction, retention, and attrition, with a specific focus on the critical role of personal connections to schools and communities. Given that Southeastern Montana has been particularly affected by the ongoing teacher shortage (Szpaller, 2021), this research aims to identify strategies to support rural remote teachers and improve educational outcomes in these areas by examining the factors that contribute to teacher retention and those that lead to departures.

Theoretical Framework

Job embeddedness theory (JET; Mitchell et al., 2001) suggests that employees' commitment to their jobs is influenced by three primary factors: job fit, social links, and sacrifice. In this model, the researchers defined the construct of "job fit" as the compatibility between the individual and the job and organization and identified several ways this construct impacts employee retention. The construct of "social links" encompassed the employee's connections with colleagues and activities within the workplace. Finally, the construct of "sacrifice" was developed to represent the potential costs associated with leaving the job, such as lost benefits or disrupted relationships. JET has been used in business management studies (e.g., Mitchell, et al., 2001) and has been found to be a robust predictor of employee retention across diverse groups of employees (e.g., Mallol, Holtom, & Lee, 2007) countries, and cultures (e.g., Lee, et al., 2014).

Larkin et al. (2021) adapted JET to explore the nature of teacher retention, with specific attention to the unique context, challenges, and rewards of the teaching profession. Larkin identified the following six embeddedness factors that impact teacher retention: fit, links, and assets in both the organization (school) and community domains. Given that studies using the teacher embeddedness framework (TEF) have found it to be effective in understanding and predicting teacher retention in urban contexts (Larkin et al., 2022), this research seeks to explore its applicability to rural remote schools. The TEF may also offer a valuable lens for understanding some of the complex interpersonal dynamics which impact rural remote teacher attraction, retention, and attrition. Findings may also help guide the development of strategies to improve retention for rural remote teachers.

For example, previous research suggests teachers in rural settings often rely heavily on strong links within their small school communities and broader local networks for support and professional growth opportunities (Tran et al., 2020). Furthermore, assets such as specialized skills in rural education or deep-rooted community ties can greatly influence teachers' decisions to stay in their roles despite challenges (Wang & Klassen, 2023). Thus, the TEF factors of school fit and community fit may be critical in determining how well teachers' personal and professional aspirations align with the values and needs of rural schools and communities. However, the existing research primarily reflects urban contexts, leaving a gap in understanding how these dynamics play out in rural settings, (Preston 2012; Aguliera & Nightengale-Lee, 2020; Tran et al., 2020) especially in rural remote areas like Southeastern Montana. Specifically, this study has been designed to explore how teacher fit (defined as alignment with rural remote school and community culture and values), teacher links (defined as relationships and connections within the rural remote school and community), and teacher assets (defined as perceived school and community benefits and resources) influence teacher attraction, retention, and attrition in rural remote schools.

Research Questions

Identifying which embeddedness factors which attract teachers to rural remote schools is crucial. Understanding the role that embeddedness factors play in why these teachers stay in the classroom is equally important, as is the need to know more about how embeddedness factors impact teachers' decisions to leave. Thus, to identify the embeddedness factors that shape rural remote teachers’ attraction, retention, and attrition in teaching positions, the following research questions were created for this study:

1. For rural remote teachers in Southeastern Montana who are currently in the profession:
    a. Which embeddedness factors influenced their decision to accept their teaching position?
    b. Which embeddedness factors influence their decision to continue in the position?
2. For rural remote teachers in Southeastern Montana who have recently left the profession:
    a. Which embeddedness factors influenced their decision to accept their teaching position?
    b. Which embeddedness factors influenced their decision to leave their position?

Significance

Limited research has explored the perspectives of rural teachers, leaving a significant gap in understanding the complex embeddedness factors that influence their decisions to enter, stay, or leave these positions. These perspectives of rural remote teachers remain largely unexplored. This gap in knowledge hampers our ability to develop targeted strategies to attract and retain teachers in these challenging contexts. While some studies have identified the advantages and challenges of rural teaching (e.g., Tran et al., 2020), few have focused on the role of teacher embeddedness – the types of interpersonal connections to schools and communities which shape teachers' decisions. Given the growing teacher shortage in rural remote areas, more research is needed to understand how these interpersonal connections impact teacher attraction, retention, and attrition in these rural environments. By exploring the perspectives of rural remote teachers in Southeastern Montana, this study aims to provide valuable insights that can inform

strategies for attracting and retaining educators in these unique settings. Understanding the factors that influence teachers' decisions to accept, stay, or leave rural remote positions is crucial for improving educational quality and stability in these communities.

Research Methodology

This study will employ an exploratory case study design, (Yin, 2014), in order to investigate the types of interpersonal connections which influence the attraction and retention of teachers in rural remote settings. An exploratory case study is particularly apt for investigating intricate social phenomena, such as teachers' perspectives on employment in rural remote schools, through the lens of their personal experiences. Yin (2014) underscores the importance of establishing a clear rationale and direction from the beginning, a critical consideration when documenting teachers' experiences. This approach aligns with the qualitative nature of the research, which aims to better understand teacher perspectives regarding job attraction and retention in rural remote Southeastern Montana. According to Yin (2014), exploratory case studies provide a deep understanding of complex issues within real-life contexts, especially in areas with limited prior research. This design allows for flexibility and the generation of rich, detailed data that quantitative methods might miss. However, findings from this method may lack generalizability due to the focus on a limited number of cases, and the subjective nature of qualitative data can introduce researcher bias. Additionally, exploratory case studies require considerable time and resources. Despite these challenges, they remain valuable for providing in-depth insights and understanding complex phenomena such as rural remote teacher perceptions, (Yin, 2014).

Positionality

I come to this project from a diverse background in teaching across various educational settings in Southeastern Montana. My experience spans teaching in K-8 schools, on the Northern Cheyenne Indian Reservation, in both private and public institutions, and at a rural college, Miles Community College. I have gained valuable insights into the challenges and opportunities in rural education by having taught Adult Education classes, including those focused on HiSET (High School Equivalency Test) preparation, and remedial reading and writing classes for pre-college students.

Growing up in a rural area of South Dakota and completing my master's degree online while teaching on the rural Northern Cheyenne Reservation have significantly influenced my perspectives on the importance of rural life and the value of the teaching profession. My three children attended a small, rural remote school where I served as one of their teachers, further deepening my connection to rural education. My interest in supporting small, rural remote Southeastern Montana schools stems from my appreciation of the holistic education these schools provide—embracing not only academics but also offering an invaluable sense of community and relationships often overlooked by those outside rural areas. These schools serve as the heart of their communities, offering gathering spaces, supporting local families, and fostering a sense of belonging through events, activities, and sports.

I have chosen to investigate rural remote teacher perspectives in Southeastern Montana to gain insights into teachers' experiences within these environments and how the distinct characteristics of rural remote schools and communities influence teacher attraction and retention in the profession. My goal is to enhance my effectiveness as an instructor for Teacher

Preparation Programs in rural remote Southeastern Montana, advocate more effectively for rural remote schools, and serve as an informed resource for teachers and schools in the region. I am committed to contributing to the improvement of rural remote education through evidence-based research and community engagement. My background informs my understanding of the challenges and strengths of rural education, providing a lens through which I approach research in Southeastern Montana. However, I am also mindful of the ways in which my own experiences may influence my perspective of rural education, and I acknowledge my potential biases. Through self-reflection, I acknowledge the potential impact of my personal journey on my research, and therefore I will engage in reflexive journaling, documenting my thoughts, feelings, and reflections throughout the research process. This practice will allow me to track my perspectives, identify any biases or influences that may emerge over time, as well as uphold transparency. I strive to conduct research that is rigorous, impartial, and respectful of perspectives within the study context to ensure a balanced and insightful exploration of rural remote education. This awareness guides me in navigating the complexities of understanding the unique experiences of teachers in rural remote settings.

While I am committed to understanding the experiences of other rural remote teachers, I acknowledge that I cannot fully grasp their unique perspectives. Therefore, I will refrain from making assumptions about their perspective and remain open to diverse viewpoints within the broader context of rural education. My commitment to unbiased and inclusive research extends to recognizing the individuality of each teacher's journey and allows for a more focused exploration of the challenges and triumphs within the diversity of rural education. By maintaining this openness, I aim to foster a rich understanding of the collective experiences of

rural educators in Southeastern Montana, respecting the varied narratives that contribute to rural teaching.

Operational Definitions

1. Rural: NCES (2022) defines rural as a territory that is more than 5 miles, but less than or equal to 25 miles, from an Urbanized Area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an Urban Cluster. The National Center for Education Statistics (NCES) defines rural as a school district that is located in a census-defined rural area. The NCES also classifies rural areas into three subtypes based on their distance from an urbanized area:
    a. Rural-fringe: Less than or equal to five miles from an urbanized area
    b. Rural-distant: More than five miles but less than or equal to 25 miles from an urbanized area
    c. Rural-remote: More than 25 miles from an urbanized area and more than 10 miles from an urban cluster
2. Stayers: Teachers who remain employed in the same school where they began their careers are referred to as "stayers" (Shen, 1997).
3. Movers: Teachers who voluntarily transition to another school or position are called "movers" (Shen, 1997). For this study, both stayers and movers are classified as retained.
4. Leavers: Teachers who have left the profession entirely, a phenomenon known as attrition, are referred to as "leavers" (Shen, 1997).
5. Turnover: The change in the number of teachers from one year to the next in a particular school setting (Carver-Thomas & Darling-Hammond, 2017).

6. Attraction: Job attraction theory defines attraction as the positive perception and desire of an individual to work for a specific organization (Rynes & Barber 1990).
7. Recruitment: Teacher recruitment is the process of schools attracting, selecting, and hiring qualified individuals to become educators in schools (Ingersoll & Strong, 2011).
8. Retention: The situation when teachers return to their same school setting each school year; they have also been referred to as “stayers” (Lochmiller et al. 2016). This study recognizes that teachers who change schools but remain employed within the same school system are still considered as part of the retention dynamics; they are referred to as “movers”.
9. Attrition: The condition when teachers leave the education system from one year to the next; they have also been referred to as “leavers” (Lochmiller et al. 2016).

In this study, a deliberate distinction will be made between the terms attraction and recruitment. Given that the focus is on teachers' perceptions, the term recruitment will be intentionally excluded. Attraction and recruitment, while related, differ in their focus and scope. Job attraction refers to the positive perceptions and desires that individuals have toward a specific organization, driven by factors such as the organization’s reputation, work environment, and alignment with personal values (Rynes & Barber, 1990). It highlights the emotional and cognitive appeal that a particular job holds for a prospective employee. In contrast, recruitment is the broader process through which schools actively attract, select, and hire qualified individuals to fill teaching positions (Ingersoll & Strong, 2011). Recruitment encompasses all activities aimed at drawing potential candidates to apply for jobs, including outreach efforts, interviews, and the final selection process. While attraction is an individual's initial interest in a position,

recruitment involves the structured process that schools undertake to secure candidates for those positions.

Assumptions, Limitations, Delimitations

This study will be focused on teachers employed in the K-8 education sector within rural remote Southeastern Montana. The study will employ in-depth semi-structured interviews involving both actively employed teachers in rural schools and those who have left the teaching profession from Southeastern Montana. The study will include teachers who have transitioned into administrative roles, changed school districts, or pursued different positions, and those who have exited the profession entirely. Participants will be invited based on their status as teachers working or having worked in rural remote Southeastern Montana schools, ensuring a specific focus on this regional demographic. The study's intent is not to generalize findings nationwide but to offer a nuanced representation of the experiences and perspectives within the rural remote teacher population of Southeastern Montana school districts. The study assumes that interviewees will provide genuine, honest, and clear interpretations of their personal experiences while teaching in rural remote schools and community settings.

Several deliberate delimitations were established to refine the scope and focus of the research. The geographic focus is restricted to rural remote Southeastern Montana, thus providing a localized perspective rather than a comprehensive examination of rural remote teachers' perspectives nationally or globally. A specific time frame is set, focusing primarily on recent trends and developments post Covid (2020-2025) to capture contemporary dynamics in rural remote schools and communities. This study will invite participants with varying levels of experience, working in or who have worked in rural remote Southeastern Montana schools. The

research methodology will be confined to qualitative interviews, chosen to delve deeply into teacher perspectives within the unique context of rural education. These deliberate delimitations are crucial in providing clarity and coherence to the study's objectives, ensuring a focused and meaningful exploration of teacher perspectives within rural remote education in Southeastern Montana.

The study is subject to several limitations that necessitate careful consideration when interpreting its findings. The study's reliance on self-reporting methods introduces the potential for response bias, where participants may provide responses that align with perceived expectations or social desirability. Therefore, this study will make every effort to design interview questions that allow participants to share as much of their experience as is comfortable.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This literature review will explore the multifaceted issue of teacher shortages. It will delve into the global context of teacher shortages, examining the factors contributing to these shortages and their impact on educational outcomes. Subsequently, the review will narrow its focus to the specific challenges faced by rural schools, highlighting the unique difficulties of attracting and retaining teachers in these contexts.

A key theme of this review will be the application of teacher embeddedness theory to understand the complex dynamics of teacher attraction, retention, and attrition in rural remote schools. By examining the factors that influence teachers' connections to their schools and communities, their perceived fit within the school culture, and their access to resources and support, this theory provides a valuable framework for analyzing the challenges faced by teachers in these isolated settings.

Teacher Shortage

Magnitude of the Problem

Amid many challenges facing our world today, the global teacher shortage has emerged as a significant challenge, with far-reaching implications for educational systems worldwide. Podolsky et al. (2016) defines a teacher shortage as a situation where the demand for teachers significantly exceeds the available supply. The teacher shortage in the United States education system is a growing concern but remains poorly understood (Balow, 2021; Sutcher et al.,2019;

Garcia & Weiss, 2019). A teacher shortage occurs when schools can't fill vacancies with qualified teachers at current wages (Sutcher et al., 2019). Research conducted by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), suggests that by 2030, an additional 68.8 million teachers will need to be recruited for elementary and secondary teaching positions around the globe, and of those, 44 million are needed to replace the workforce that will leave the profession (UNESCO, 2024). Unfilled teaching positions result from various factors, including the decreased appeal of teaching as a career, rising school enrollment and class sizes, and excessive teacher turnover (Bacher-Hicks et al., 2023). Without enough qualified teachers, there is a risk that students worldwide may be deprived of essential quality education. This shortfall could have detrimental effects on shaping values, behavior, and worldviews among learners, as highlighted by Tikly & Barrett (2011) and Darling-Hammond (2015). Moreover, education plays a vital role in fostering the growth of competencies, skills, concepts, and tools that are essential for the development of individuals and societies, (Wals & Benavot 2017).

This leaves school districts to look for other options. Some school districts have hired employees without a teaching license to fill open positions, thus, insufficiently qualified teachers in schools not only hinder students' ability to learn but also undermine the effectiveness of teachers, potentially resulting in high teacher turnover (Garcia & Weiss, 2019). Schools without a solid base of teachers will not have the relationships and community involvement that schools need to thrive, and, in turn, it will be harder to attract more people to go into teaching as a profession in that area. (OECD, 2012).

The impact of the teacher shortage extends beyond immediate classroom settings; it could also impede the overall progress and well-being of communities and nations (Tran et al. 2020).

Tran et al. argue that persistent staffing gaps in rural schools can exacerbate educational inequities, limit economic mobility, and weaken the social fabric of communities. Addressing this crisis is crucial to ensure that the transformative power of education continues to positively influence future generations and contribute to the advancement of societies on a global scale.

Historical Context of Teacher Shortages in the United States

While historically a persistent challenge, the issue of teacher shortages has escalated into a pressing crisis, with data indicating a worsening trend. In the early 20th century, shortages were present but less documented, particularly affecting rural areas due to lower wages and fewer resources. The profession, predominantly occupied by women, experienced high attrition rates as many left after marriage (Tyack, 1974). The post-World War II era saw increased educational demand driven by the baby boom. While the 1950s and 1960s saw significant educational reforms and expansions, teacher shortages persisted, especially in underserved areas, despite improvements in professionalization and working conditions (Sykes, 2003). During the late 20th century, shortages became more pronounced due to rising student populations, changing educational standards, and growing teacher attrition rates. The late 1980s and 1990s brought heightened awareness of these issues, highlighting the disparities between urban and rural schools (Ingersoll, 2001). In the early 21st century, concerns about teacher shortages intensified, driven by high attrition rates, inadequate salaries, and increased demands on teachers. This period saw a greater focus on rural versus urban disparities, with rural areas often facing more severe shortages (Barnes et al., 2007). The National Commission on Teaching and America's Future (Barnes et al., 2007) estimated that the teacher attrition rate increased by 50

percent from 1992 to 2007. The U.S. Department of Education's Follow-up Survey also shows a rise in teacher attrition: from 5.1% in the 1991-1992 school year to nearly 8% in 2012-2013 (Goldring et al., 2014). The Alliance for Education reports a teacher turnover rate of about 20 percent (Haynes, 2014), supporting the Consortium for Policy Research in Education's observation of a less stable teaching force (Ingersoll & Merrill, 2013). Thus, the teacher shortage has been a persistent issue, influenced by evolving educational demands and socio-economic factors, necessitating ongoing efforts to understand and address the root causes across different contexts.

Current Teacher Shortage on a National Level

The United States is not exempt to this global problem: teacher shortages are a serious national issue (Garcia & Weiss, 2019; Ingersoll & Tran 2023). Shortages in more than one subject area and grade level were reported by all 50 states during the 2022-23 school year, (Darling-Hammond, et al., 2023). Additionally, according to Garcia and Weiss (2019), 13.8% of public-school teachers in the United States are leaving their schools or the profession entirely. Additionally, schools are struggling to fill vacancies, particularly with credentialed teachers. Literature highlights that while the teacher shortage in K-12 schools across the United States is increasingly acknowledged, it remains poorly understood (Balow, 2021; Sutcher et al., 2019; Garcia & Weiss, 2019).

The shortage stems from an insufficient supply of credentialed teachers to meet the growing demand. With student enrollment projected to increase by three million over the next decade, the problem is expected to worsen (Berry & Shields, 2017). This shortage not only affects teachers but also has far-reaching consequences for students and the education system.

Addressing this issue will require comprehensive research, targeted policy interventions, and sustainable solutions. Reducing teacher attrition, whether through retention in current schools or within the profession at large, is essential to alleviating the shortage (Carver-Thomas & Darling-Hammond, 2017; Garcia & Weiss, 2019; Walker, 2022).

The teacher shortage crisis is particularly acute in specific content areas, such as STEM, special education, and bilingual education. These shortages disproportionately affect rural and high-poverty schools, leading to significant impacts on student achievement. Research consistently indicates a dearth of qualified teachers in these fields, which can result in overcrowded classrooms, reduced instructional time, and compromised learning outcomes (Sutcher et al., 2016).

In STEM, the shortage is exacerbated by high turnover rates, as teachers often seek better-paying positions in the private sector (Matulka, 2024). Special education teachers face similar challenges, compounded by the demanding nature of the role, which can lead to burnout and high attrition rates (Stark & Koslouski, 2021). Bilingual education is further strained by the growing demand for culturally responsive pedagogy, while there are fewer teachers prepared to meet the needs of an increasingly diverse student population (Cramer & Ryan, 2023).

According to the 2020-21 National Teacher and Principal Survey (NTPS), (Taie & Lewis, 2022), rural public schools faced significantly more challenges in filling teaching vacancies compared to their suburban and urban counterparts. Specifically, in the fields of foreign languages, English or language arts, and social studies, a higher percentage of rural public schools reported extreme difficulty or inability to fill teaching positions. For example, in 2020-21, 57% of rural public schools struggled to fill foreign language vacancies, compared to

37% in suburban areas and 36% in cities. Rural private schools also experienced difficulties in filling teaching positions, particularly in physical education or health. Forty-four percent of rural private schools found it very difficult or impossible to fill these vacancies, while the rates were lower in cities (17%) and suburban areas (12%). Overall, the data from the NTPS highlights the persistent challenges faced by rural schools in attracting and retaining qualified teachers, particularly in specialized fields like foreign languages and STEM subjects.

Causes of Teacher Shortages

Profession

Teacher shortages stem from complex factors, with two primary contributors identified by Sutcher et al. (2019): declining interest in teaching as a career and the departure of experienced educators from the profession. Previous research has documented the diminishing appeal of teaching as a viable career choice and highlighted numerous factors contributing to this multifaceted issue (Bacher-Hicks et al., 2023). A notable factor is the decline in individuals pursuing education degrees and teacher preparation programs, leading to a shrinking pool of prospective teachers (Garcia & Weiss, 2019). Evans et al. (2021) found that comparatively lower salaries, demanding workloads, and the perceived undervaluation of the profession have further dissuaded many from viewing teaching as a rewarding or sustainable career. This decline in interest directly impacts the recruitment pipeline, complicating efforts to meet the increasing demand for qualified educators. These challenges are compounded by rising student enrollment, growing class sizes, and high rates of teacher attrition (Bacher-Hicks et al., 2023).

Value

Many educators report leaving the profession due to feelings of being undervalued, citing restrictive policies, stress from standardized testing, inadequate evaluations, and a lack of professional autonomy as significant sources of dissatisfaction (Garcia & Weiss, 2019). Teachers often cite excessive workload, a perceived lack of control over their teaching environment, insufficient reward or recognition, strained relationships, unfair treatment, and misaligned values as contributing factors to burnout (Green et al., 2022). A 2022 survey by Walker found that teachers are feeling exhausted and frustrated, primarily due to a lack of support and respect from their schools or communities (Walker, 2022). This highlights the urgent need for comprehensive strategies to both attract new teachers and create an environment that supports the retention of experienced educators.

Simultaneously, the departure of experienced teachers from the profession exacerbates the shortage (Craig et al., 2023; Garcia & Weiss, 2019). Factors such as retirement, burnout, and the pursuit of alternative career opportunities contribute to the loss of seasoned educators (Santoro, 2021). The attrition of experienced teachers not only diminishes the overall expertise within the teaching workforce but also places an additional burden on schools to replace departing teachers with new, often less experienced, teachers (Hanushek et al. 2016). This turnover disrupts the continuity and stability of educational environments, impacting both the quality of instruction and the sense of community within schools (Hanushek et al. 2016.

With an insufficient number of teachers, administrators face the challenge of creating larger class sizes to accommodate student populations, leading to increased student-to-teacher ratios. This, in turn, diminishes the ability of educators to provide individualized attention and

support to each student, potentially hindering their academic progress, personal development, and limiting access to specialized instruction (McHenry-Sorber & Campbell, 2019).

Economic

The need to address the teacher shortage at the national level is evident, as it impacts not only the well-being of students but also the sustained development of communities. Among these widespread shortages, exacerbated by challenges in recruiting and retaining qualified educators, the issue of economic cost emerges as a critical concern. Nationally, the issue of teacher attrition presents a substantial financial burden, with an estimated cost exceeding $8.5 billion (about $26 per person in the US) annually. The Learning Policy Institute (2017), further emphasizes the significant impact on school districts, estimating that the turnover of each teacher costs districts between $20,000 and $30,000. When considering the combined expenses of non-retention and the subsequent recruitment of new teachers, the total cost can escalate to 150% of the departing teacher's salary. This comprehensive figure includes recruitment expenditures, training and orientation costs, expenses related to substitute teachers during the transitional period, and the potential disruption to student learning (Learning Policy Institute, 2017).

Beyond the financial implications, high teacher turnover poses challenges to educational continuity, teacher morale, and the overall stability of the learning environment. Holme et al. (2018) utilize the term "instability" to delineate the chronic attrition of teachers, very similar to the definition of “turnover” provided by Carver-Thomas & Darling Hammond (2017), which refers to the fluctuation in the number of teachers from one year to the next within a specific school setting. According to Garcia and Weiss (2019), the issue of teacher shortage creates an economic strain on school districts and can come in three different forms: (a) separation costs

which include sick leave, vacation pay, documenting files, and exit information data collection; (b) replacement costs including recruitment, hiring costs, and hiring incentives for the teachers replacing the leaving teacher; and (c) induction costs including new employee induction and professional development to familiarize new teachers to the schools' culture.

Rurality

Defining "rural" is a complex challenge for researchers and policymakers. While the U.S. Census Bureau provides a widely used operational definition, it tends to oversimplify the multifaceted nature of rurality. The bureau categorizes geographic areas as urban or rural based on population density, designating urban areas as those with populations of 50,000 or more. Consequently, areas not classified as urban are labeled as rural.

However, this narrow classification fails to capture the diverse characteristics of rural places. A more comprehensive understanding of rurality requires considering additional factors such as economic structure, social and cultural dynamics, and geographic isolation. For instance, rural areas often rely heavily on industries like agriculture, forestry, or mining (Brown & Lent, 2016). They are frequently characterized by close-knit communities, traditional values, and a distinct sense of place (Newby, 1980). Geographic remoteness from urban centers and limited access to essential services further shape the rural experience (Bocco, 2016).

Understanding rurality is crucial for addressing the challenges and opportunities within educational contexts. It is important to recognize that definitions of rurality can vary significantly across different contexts and research disciplines. Although there may not be a universally standardized definition, most interpretations include measures of population density and proximity to more densely populated centers. The U.S. Department of Education, for instance,

recognizes the National Center for Education Statistics (NCES) classification, which defines a locale as rural if it falls outside urbanized areas and urban clusters.

The NCES classification system includes three categories based on proximity to urban centers:

- **Fringe areas -** According to the U.S. Census Bureau, fringe rural areas are characterized as rural territories that are located within 5 miles of an urbanized area or 2.5 miles of an urban cluster.
- **Distant regions -** According to the U.S. Census Bureau, distant rural areas are characterized as census-defined rural territories that are located more than 5 miles but no more than 25 miles from an Urbanized Area, or more than 2.5 miles but no more than 10 miles from an Urban Cluster.
- **Remote areas -** According to the U.S. Census Bureau, remote rural areas are characterized as census-defined rural territories that are located more than 25 miles from an Urbanized Area and more than 10 miles from an Urban Cluster.

Globally, the World Bank often employs a combination of population density and economic criteria to define rural areas, considering factors such as the percentage of the population engaged in agriculture and settlement size. These definitions underscore the need to account for multiple factors—population density, economic activities, and geographic characteristics—when defining rural areas in the context of education. It is essential to consult specific sources and definitions relevant to the region or country of interest, as criteria can vary widely.

Rural remote schools are educational institutions located in geographically isolated areas, characterized by low population density, significant distance from urban centers, and limited

accessibility (NCES, 2023). These schools often face unique challenges due to their remote location, including geographic isolation, sparse population, limited resources, and socioeconomic disadvantages (NCES, 2023). The specific criteria for defining rural remote schools can vary across different countries and regions, but these general characteristics provide a useful framework for understanding the challenges faced by these institutions. Beyond geographic isolation, rural remote schools often face additional challenges. Extreme weather conditions, such as heavy snowfall, flooding, or heatwaves, can disrupt school operations and hinder student and teacher attendance (NCES, 2023). Limited infrastructure, including poor road conditions, unreliable electricity, and inadequate internet connectivity, can further impede educational opportunities (NCES, 2023). These factors, coupled with the inherent difficulties of rurality, can significantly impact the quality of education and the well-being of students and teachers in rural remote schools.

Teacher Shortages in Rural Schools

Unique Challenges of Rural Schools

Rural schools often struggle with unique obstacles that urban and suburban schools may not face. These challenges are primarily driven by geographic isolation, limited financial resources, and restricted access to professional development access. According to a study by Darling-Hammond (2019), rural schools tend to have fewer resources and less access to high-quality training programs for teachers. Furthermore, the physical distance from urban centers can make it difficult for rural areas to attract and retain highly qualified educators (Barbosa & Coneway, 2023). These factors contribute to a cycle of teacher turnover and recruitment difficulties, which ultimately affect the quality of education in rural communities. As such,

addressing these challenges is crucial for ensuring that rural schools can provide students with the high-quality education they deserve.

Geographic

Geographic isolation is one of the most significant deterrents, as many rural locations struggle with accessibility, transportation, and digital connectivity (Barbosa & Coneway, 2023). These logistical difficulties make it challenging for teachers to relocate and maintain contact with professional networks, colleagues, and educational resources. Additionally, the emotional toll of working in isolated communities, where social and recreational opportunities are limited, can lead to burnout and stress. The challenge of retaining experienced teachers is further complicated by rural schools often struggling to find qualified replacements. Research by Goldhaber et al. (2020) shows that filling teaching positions in rural districts is particularly difficult due to the small pool of available candidates, leading to prolonged vacancies or hiring of less experienced teachers. This revolving door of educators impacts the stability and consistency of instruction, ultimately affecting students' educational outcomes.

Financial Limitations

Rural districts often offer lower base salaries compared to their urban counterparts, which significantly influences financial decisions for potential educators. This salary disparity plays a crucial role in the decision-making process for teachers, especially those who may be burdened with student loans or other financial responsibilities. Research by Barbosa and Coneway (2023) reveals that lower salaries in rural schools are a major factor contributing to higher turnover rates, as teachers in these areas are often unable to meet their financial needs or achieve long-term financial stability. Additionally, Ingersoll and Smith (2019) emphasize that the pay gap

between rural and urban districts can discourage qualified individuals from applying for rural teaching positions, further exacerbating the shortage of teachers in these areas. The financial constraints faced by rural districts, combined with limited professional development opportunities and fewer incentives, make it increasingly difficult to attract and retain educators. As a result, these financial challenges not only hinder the growth of the teaching workforce but also contribute to the inequities in educational opportunities between rural and urban communities (Nguyen et al., 2019). Addressing these compensation disparities is critical to ensuring that rural schools can compete for and retain high-quality teachers.

Access to Professional Support

Beyond financial considerations, rural educators frequently lack access to robust professional development opportunities. Limited resources mean fewer workshops, training programs, or opportunities for teachers to stay current with educational trends, pedagogy, or technological advancements. The feeling of professional stagnation, coupled with isolation, contributes to the reluctance of many educators to either move to or remain in rural settings. Additionally, teachers in rural areas are often required to juggle multiple roles and multiple grade levels due to limited staffing. They may take on additional responsibilities such as coaching, advising, or handling administrative tasks, which increases their workload and leaves them feeling overburdened. Research by Jimerson (2003), Martin and Mulvihill (2016), Monk (2007), Reeves (2003), Tran and Smith (2019), and Viadero (2018) reinforces the idea that these multi-layered issues contribute to the hesitation of new teachers to seek employment in rural districts.

Once teachers enter rural schools, retaining them becomes a significant challenge, and teacher attrition is a major factor driving shortages in these areas (Ingersoll & Tran, 2023).

Teachers in rural settings often feel isolated both personally and professionally, a condition that is exacerbated by the lack of essential resources, including instructional materials, infrastructure, and technology. These limitations restrict teachers' ability to deliver high-quality education, which can lead to frustration and a sense of inadequacy. Tieken (2017) describes this issue as "spatial injustice," where rural schools are at a disadvantage in terms of funding and access to vital resources, further deepening the gap between rural and urban education systems.

Attrition rates in rural schools are also heightened by the lack of career advancement opportunities and support systems that urban educators typically have access to. Teachers may feel that staying in rural settings hampers their professional growth, as they have fewer opportunities for promotion, mentorship, or networking (Ingersoll & Tran, 2023). Addressing these hurdles requires targeted support measures, such as salary adjustments, incentives, and improved professional development, all of which are essential in attracting skilled educators to rural schools.

Rural Affordances

However, despite these challenges, rural schools have some unique advantages that can aid in both attracting and retaining teachers. The close-knit nature of rural communities often fosters deep relationships between teachers, families, and community members. These strong ties can create a supportive and collaborative environment, making teachers feel more valued and integrated into the community. Smaller class sizes in rural schools also allow for more personalized attention and individualized learning, which can enhance job satisfaction for teachers who enjoy developing close connections with their students (Oyen & Schweinle, 2021). Yet, the success of these positive factors depends on rural schools' ability to address the broader

issues of isolation, compensation, and professional development. By providing targeted support and implementing systemic changes, rural districts can not only attract new educators but also retain experienced teachers, thus ensuring the long-term success of their students (Dhaliwal & Bruno, 2021).

Researchers have highlighted a key advantage of rural schools that can enhance teacher staffing and retention: strong community ties. Many teachers choose to remain in rural settings largely due to the meaningful relationships they build with students, colleagues, administrators, and community members. The smaller size of these schools fosters deep connections, often resulting in lifelong friendships. In rural areas, teachers can more easily observe the long-term impact of their work, as they encounter former students who grow up, establish careers, and start families within the local community (Seelig & McCabe, 2021). These strong community bonds can be leveraged as effective tools for attracting and retaining teachers (Tran et al., 2020), with research indicating some success in this approach (Maranto, 2013). However, the consolidation of smaller rural school districts poses a risk to this localized sense of community, potentially undermining one of the main attractions of teaching in rural areas (Duncombe & Yinger, 2010).

Impact of Teacher Shortages on Rural Schools

As stated by the Organization for Economic Cooperation and Development (OECD), schools lacking a robust teacher base not only struggle with establishing crucial relationships and community involvement but also face greater challenges in attracting individuals to pursue teaching as a profession in that area (OECD, 2012). This issue is particularly pronounced in rural schools, where students are impacted by disadvantages arising from teacher shortages, inexperience, and attrition (Burke & Buchanan, 2022). Rural schools are recognized by the

NCES, as schools located outside urbanized areas and urban clusters. According to a November 2019 report by the Rural School and Community Trust, approximately 9.3 million public school students in the United States, nearly 1 in 5 of all students, attend rural schools (McHenry-Sorber, 2019).

While the challenges faced by rural schools may differ from those in other contexts; diversity, persistent poverty, multiple cultural identities, and isolation, often compounded by geographical limitations and sporadic access to broadband, form the backdrop for many rural schools. At the beginning of the 2020-21 school year, Ingersoll and Tran (2023) found that approximately 80% of public secondary schools, including those in urban, suburban, and rural areas, were compelled to recruit and interview teachers for vacant teaching positions in one or more key subjects. Notably, among rural schools, 59% encountered significant challenges in filling one or more of these openings—a proportion higher than that observed in urban or suburban schools. Despite facing similar demands to meet new educational reforms and administrative tasks as urban schools, rural schools contend with significantly limited staffing (Barley & Brigham, 2008). Compounding the challenges for rural schools is the substantial discrepancy in the destinations of migrating teachers. Research indicates that teachers were more than twice as likely to transition from rural schools to urban or suburban schools compared to the reverse migration from urban or suburban schools to rural settings (Ingersoll & Tran, 2023).

According to research conducted by Ingersoll and Tran in 2023, there has been a sharp decline in the number of schools, students, and teachers in rural areas over the past two decades. This contrasts with urban and suburban communities. For example, while the teaching force in urban and suburban school systems both increased by about a fifth in that timeframe, it decreased

by about a fifth in rural schools. Moreover, unlike in urban and suburban schools during the past decade, the average age of the rural teaching force has decreased, resulting in a decrease in the number and percentage of teachers approaching retirement age (Ingersoll & Tran, 2023).

The Rural Teacher Crisis

Rural schools face significant challenges in attracting and retaining qualified teachers, impacting the quality of education for students. Attraction refers to the feelings and interests of potential teachers toward working in rural areas, while recruitment involves the actions and strategies schools use to actively select and hire these teachers**.** As the nation grapples with a severe teacher shortage, Montana's rural communities face an even greater challenge in recruiting and retaining qualified educators. Data from the 2017–2018 school year revealed that district administrators struggled to fill, or were unable to fill, 45 percent of vacant positions (Yoon et al., 2019). Rural remote districts reported nearly double the number of unfilled positions compared to non-rural districts. Special education, music, mathematics, elementary education, science, and career/technical education were identified as the hardest-to-fill areas. More than 700 schools across Montana are facing these staffing shortages (Montana Office of Public Instruction, 2021). Amid these challenges, particularly exacerbated by the global pandemic, the demand for well-prepared and supported teachers has become more urgent.

Attraction to Rural Schools

Within current literature, there is a growing acknowledgment of the distinct challenges, opportunities, and resources inherent in rural communities concerning teacher recruitment and retention. For the past two decades, the bulk of this literature addressing education improvement

has primarily centered around enhancing urban schools (McShane & Smarick, 2018). Regrettably, the concentrated attention on urban and suburban areas has overlooked the needs of the tens of millions of students attending school in rural areas. Biddle and Azano (2016) contend that recruiting and retaining highly qualified teachers in rural schools poses an ongoing challenge in various countries, including the United States.

Although much research on rural education often highlights the disparities caused by a lack of resources, scholars are increasingly advocating for a shift in focus from deficits to assets when examining rural schools. In recent research, Davis and Buchanan (2022) highlight the importance of rural communities working together as they explore ways to support student mental health in Montana. The research outlines the process and potential of using new and innovative community-based participatory research to aid rural schools. In another study, Wang et al. (2021) examined the sharing of digital educational resources among rural teachers. They utilized self-report surveys based on motivation theory and the integrative model of behavior prediction. The study found that various motivational factors were associated with sharing behavior, both within and outside of the school context. Interestingly, unlike in some schools where factors like unwillingness to share, lack of time and background knowledge, or the fear of losing personal advantages discourage knowledge sharing, this was not observed among rural teachers. Marietta and Marietta (2021), demonstrate that the effectiveness of educational efforts in rural communities and they stress the importance and vibrancy of rural areas, advocating for solutions tailored to each community's sociocultural and historical context, highlighting the uniqueness of each rural school community. Ingersoll and Tran (2023) have also identified a particular characteristic of rural schools that can positively impact teacher staffing and

retention—the strength of community ties. Teachers often remain in rural schools primarily due to the strong relationships they form, including those with students, colleagues, administrators, and community members. Given the smaller size of most rural schools, strong bonds tend to develop between teachers and their colleagues and students, resulting in lifelong relationships. Additionally, the efficacy and impact of rural teachers on their students can be more visible within the smaller community. Teachers often continue to interact with their former students as they grow into adults, work, and start families within the local community.

Teacher Recruitment in Rural Schools

One of the key trends in rural education is the difficulty in filling vacant positions. Consequently, many rural schools resort to alternative certification programs or emergency hiring practices to fill teaching positions, which can lead to a less experienced or qualified workforce (Goldhaber et al., 2020). Research by Carver-Thomas & Darling-Hammond (2017) indicates that educators entering the profession through alternative certification routes are significantly more likely to leave both their schools and the profession entirely, highlighting the critical importance of traditional teacher preparation programs.

Recruiting qualified educators to rural areas poses significant challenges. Rural schools often face shortages of qualified teachers due to various factors, including geographic isolation, limited resources, and lower salaries compared to urban or suburban areas (Ingersoll & Tran, 2023). Rural schools struggle to offer competitive salaries and benefits, making it difficult to attract teachers who may already be burdened by student debt or seeking better career advancement prospects (NCES, 2019). Moreover, the social and professional isolation experienced in remote regions can deter potential candidates, as teachers often lack access to

supportive peer networks and collaborative opportunities (Monk, 2007). The limited availability of housing and amenities, as well as concerns about the quality of local schools for their own children, further complicate recruitment (Williams & Grooms, 2016).

To address these challenges, various strategies and initiatives have been developed to enhance the attraction of educators to rural areas. These include offering financial incentives such as loan forgiveness programs or housing subsidies, providing targeted professional development opportunities, and fostering community partnerships to support teachers in rural areas (Carver-Thomas & Darling-Hammond, 2017; Moffa & McHenry-Sorber, 2018). The Higher Education Act of 1965 introduced a financial incentive that allowed for federal loan forgiveness for those who pursued teaching careers, according to the Department of Education. States utilized the funds made available through this act for various recruitment strategies, such as increasing salaries for teachers in challenging-to-fill positions and prompting higher education institutions to develop new teacher preparation programs. Additionally, in 2008, President Bush launched an initiative that allocated funding to states for rewarding exemplary teaching. Research grants were also provided to explore the link between teacher training and student achievement in K-12 education (Bell et al., 2018). These programs assumed that financial incentives play a crucial role in shaping individuals' choices about entering the teaching profession, as well as their decisions about where and how to teach.

Partnerships between rural schools and universities can facilitate the placement of student teachers in rural settings, creating pathways for future employment (Azano & Stewart, 2016). Additionally, professional development programs tailored to the unique needs of rural educators can boost job satisfaction and commitment. For example, mentorship programs and online

communities of practice can provide crucial support and resources (Burton & Johnson, 2010). Community engagement initiatives that integrate teachers into the local culture and foster strong ties with the community are also vital for attracting and retaining educators in rural areas (Preston, 2012).

Teacher Retention in Rural Schools

Retention of teachers—defined as the situation in which teachers return to their same school setting each school year and are often referred to as 'stayers' (Lochmiller et al., 2016)—is another critical component of the teacher shortage problem. Many educators leave the profession within the first five years due to factors such as inadequate administrative support, high levels of stress, and insufficient resources (Ingersoll et al., 2018). The demanding nature of the job, coupled with a lack of mentorship and professional growth opportunities, exacerbates the retention crisis (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Factors such as limited professional development opportunities, isolation from support networks, and challenging working conditions contribute to high turnover rates among rural educators (Monk, 2007). Also, the absence of affordable housing, restricted access to healthcare facilities, and cultural disparities may exacerbate challenges in retaining teachers within rural communities over an extended period (Garcia & Weiss, 2019). In districts with the highest salary scales, along with well-prepared teachers who feel strongly supported by their school leaders, there is a decreased likelihood of these educators leaving their school or exiting the teaching profession altogether (Carver-Thomas & Darling-Hammond, 2017).

The current state of teacher retention in rural schools underscores the need for targeted interventions and support to ensure that all students have access to high-quality education,

regardless of their geographic location. While these trends are not exclusive to rural schools, they exhibit variations compared to other contexts, such as urban and suburban schools. School consolidation, closures, and economic decline in certain rural communities have imposed hardships on both families and schools. Additionally, rural schools encounter significant challenges in securing a complete complement of qualified teachers and the necessary supportive resources to ensure success. Furthermore, research studies pertinent to rural education and its distinct context and challenges have historically been limited (Barley & Beesley, 2007; Ingersoll & Tran, 2023).

Teacher Attrition in Rural Schools

While some attrition—the condition in which teachers leave the education system from one year to the next, often referred to as 'leavers' (Lochmiller et al., 2016)—is expected due to retirements or the removal of ineffective employees, the persistently high rate of teacher departures points to a deeper systemic issue. Although the data may be somewhat dated, it underscores a long-standing problem. The U.S. Department of Education's Teacher Follow-up Survey revealed that in the 2003-2004 school year, 30 percent of teachers who left were retirees, but 56 percent left due to job dissatisfaction (Marvel et al., 2007). Historic data shows that nearly 51 percent of public-school teachers who departed in 2012-2013 found better workload management in their new roles, and 53 percent reported improved overall work conditions (Goldring et al., 2014). This continuity in the underlying issues demonstrates that teacher attrition has been a persistent problem over time.

Attrition, or the rate at which teachers leave the profession, further intensifies the shortage. High attrition rates are often linked to job dissatisfaction stemming from excessive

workload, classroom management issues, and lack of respect from the community and policymakers (Carver-Thomas & Darling-Hammond, 2019). Addressing these challenges requires comprehensive strategies that include improving working conditions, increasing teacher salaries, and providing robust support systems for both new and experienced teachers.

High attrition is a persistent issue in many educational systems, with several factors contributing to this challenge. One primary cause is job dissatisfaction, often stemming from inadequate support, limited professional development opportunities, and challenging working conditions (Ingersoll, 2001). Teachers in rural areas may also face social and professional isolation, as they have fewer colleagues to collaborate with and limited access to professional networks (Lowe, 2006). Financial considerations play a significant role as well, with many rural schools unable to offer competitive salaries and benefits compared to urban and suburban districts (Johnson & Birkeland, 2003). Additionally, the lack of resources and teaching materials can exacerbate stress and burnout, making it difficult for teachers to maintain enthusiasm and effectiveness in their roles (Hanushek, Kain, & Rivkin, 2004).

High attrition disrupts the continuity of instruction, which can negatively affect student achievement and growth (Ronfeldt, Loeb, & Wyckoff, 2013). Frequent changes in teaching staff hinder the development of strong student-teacher relationships, which are crucial for effective learning, especially in rural settings where community bonds are significant (Schwartzbeck, 2003). Attrition also strains school budgets, as recruiting and training new teachers are costly processes that divert funds from other educational needs (Barnes, Crowe, & Schaefer, 2007). Furthermore, the loss of experienced educators can erode the overall quality of the teaching workforce, as newer, less experienced teachers may not yet possess the skills and knowledge to

deliver high-quality instruction (Guin, 2004). In rural areas, where schools often serve as central community institutions, high teacher turnover can diminish community trust and engagement with the school, weakening the social fabric and support networks vital for student success (Preston et al., 2013).

Teacher Embeddedness Theory

In the original framework of job embeddedness, Mitchell et al. (2001) identified three primary components of what it means to be embedded in a job, i.e., fit, links, and sacrifice. These components help explain why employees remain in their jobs. Fit refers to the compatibility between the employee and their job or organization, links pertain to the connections employees have with other people and activities, and sacrifice involves the perceived losses that would occur if the employee left the job. The depth of embeddedness is identified as crucial in influencing the decision to remain in a particular setting.

A few researchers (Watson, 2018; Yildiz, 2018) have explicitly used job embeddedness as a theoretical framework to study teacher retention and turnover. This is notable given its application in other employment fields for over two decades and its potential as a predictor of retention (Mitchell et al., 2001). Larkin et al. (2021) adapted the job embeddedness framework, previously used by researchers such as Lee et al. (2014), Mitchell et al. (2001), and Morganson et al. (2015), to develop the concept of teacher embeddedness, to explore factors specific to teacher retention. Larkin et al. (2021) addresses the specific conditions and contexts experienced by teachers, making it more applicable and insightful for studying teacher retention.

The Larkin et al. (2021) model of teacher job embeddedness retains the core elements of fit and links but significantly modifies the concept of sacrifice to better reflect the realities faced

by teachers. They reframe sacrifice in terms of the assets that contribute to teacher retention, defining these assets as "the sum of the tangible and intangible benefits to an individual in terms of perceived material and psychological value" (p. 15). This redefinition shifts the focus from what teachers might lose if they leave their position to what they currently gain from their role, both professionally and personally. Thus, the teacher job embeddedness model (Larkin et al., 2021) aims to contextualize job embeddedness for teachers by redefining "sacrifice" as the loss of assets to enhance qualitative explanatory power.

Fit

Teacher embeddedness theory emphasizes the importance of the alignment between teachers' skills and job requirements, known as "fit." This concept involves matching teachers' qualifications, teaching styles, and professional goals with the needs and expectations of the school and its students (Larkin et al. 2021). A strong fit can lead to greater job satisfaction, enhanced performance, and a reduced likelihood of leaving the position. When teachers feel that their expertise is well-suited to the school's curriculum and that they are effectively contributing to student success, they are more likely to remain committed to their roles (Goegan et al. 2020). Ensuring a good fit requires careful hiring practices, ongoing professional development, and adaptive leadership that supports teachers in meeting both their professional aspirations and the school's objectives (Watson, 2018; Larkin et al. 2021). Fit refers to the alignment between a teacher's values, goals, and the school environment. When teachers feel that their personal and professional values align with the school's mission, culture, and practices, they are more likely to remain committed to their positions (Larkin et al. 2021). This alignment not only enhances job

satisfaction but also contributes to a sense of belonging and purpose within the educational institution (Mitchell et al., 2001).

The theory of teacher embeddedness highlights that "fit" pertains to the alignment and comfort a teacher experiences both within their school and the community. This includes a teacher's perception of how well their worldviews, goals, and values align with those of the school and community (Holtom et al., 2006; Watson, 2018). Watson (2018) defines fit as "the perception of shared values and goals within the organization" and suggests that a high perception of fit increases the likelihood of teachers remaining in their positions (p. 30). In contrast, a lack of fit, characterized by misaligned ideals, a lack of community, or a negative school climate, often leads to teacher turnover (Scallon et al., 2023).

Additionally, a teacher's sense of personal and psychological safety can be influenced by the racial and cultural makeup of the community and can affect perception of fit. Experiences of discrimination can diminish this strong feeling of fit (Kuehl, 2024). Fit also includes a teacher's sense of vocation. For instance, Yildiz (2018) found a strong correlation between vocational belonging and job embeddedness. Larkin et al. (2021) argue that a good fit within a school fosters a stronger sense of vocational belonging and, consequently, higher levels of embeddedness. A teacher's connection and alignment with the broader community values and goals also significantly impact their overall fit, contributing to their sense of belonging and commitment to the profession.

Links

"Links" are the formal and informal connections that teachers establish within the school and the community. These connections can include relationships with colleagues, students,

parents, and community members. Strong professional and personal networks provide teachers with social support, collaboration opportunities, and a sense of community, which are critical factors in reducing turnover intentions (Holtom et al., 2006). Community and school organizations play a crucial role in supporting teachers, particularly in rural areas where resources can be limited, and professional isolation may be a significant challenge. These organizations can provide a variety of supports that enhance teachers' professional and personal lives, contributing to their overall job satisfaction and retention. These links can anchor a teacher to both the school and the community (Holtom et al., 2006), with varying degrees of significance. Holtom et al., (2006) argue that teachers with stronger links are better equipped to navigate and make sense of challenges, thus making them more resilient to the shocks common in teaching.

Assets

"Assets" in the context of teacher embeddedness refer to the resources and benefits associated with the teaching position. These assets can be tangible, such as competitive salaries, benefits, housing assistance, and access to teaching materials, or intangible, such as professional development opportunities, recognition, and career advancement prospects (Holtom et al., 2006). Schools that invest in their teachers by providing ample resources and support can significantly enhance job satisfaction and reduce turnover rates. For rural schools, addressing specific needs such as housing, transportation, and access to quality healthcare can be crucial in retaining teachers (Monk, 2007). Additionally, creating a supportive and enriching work environment where teachers feel valued and appreciated can foster long-term commitment and job embeddedness (Larkin et al., 2021). Assets, or the tangible and intangible benefits that teachers

accrue from their positions, also play a significant role in teacher embeddedness. These assets can include job stability, professional development opportunities, and financial rewards. Moreover, community and school organizations can enhance these assets by fostering a supportive environment that recognizes and values teachers' contributions (Ingersoll & Tran, 2023).

"Sacrifice," within the context of job embeddedness, refers to the difficulty or ease of breaking these links and the perceived cost of losing the material or psychological benefits tied to the organization (Holtom et al., 2006, p. 320). Larkin et al. (2021) connect this concept to the psychological phenomenon of loss aversion (Kahneman & Tversky, 1979). They redefine sacrifice as the assets themselves, which they describe as "the sum of the tangible and intangible benefits to an individual in terms of perceived material and psychological value" (p. 15). For teachers, these assets may include salary, benefits, work patterns, and opportunities for professional growth. At the community level, this can encompass housing, safety, a sense of home, and lifestyle patterns. Larkin et al. (2021) assert that teacher embeddedness is a valuable predictor of teacher turnover.

Teacher Embeddedness in Schools

The interconnectedness of schools and communities is crucial for fostering teacher embeddedness and overall well-being. Engaged community organizations and supportive school structures create a synergistic environment where teachers feel valued, connected, and empowered**.** As Manla (2021) suggests, a positive school climate, backed by community support, contributes to teacher satisfaction and commitment. Professional learning communities, mentorship programs, and teacher associations within schools offer essential professional

development and support**,** as highlighted by Vescio, Ross, and Adams (2008) and Darling-Hammond and McLaughlin (2011). These structures facilitate knowledge sharing, collaboration, and professional growth, mitigating feelings of isolation. Community-based networks provide social integration and practical assistance, which are particularly important in rural areas (Ingersoll & Tran, 2023). Such connections enhance teachers' sense of belonging and overall quality of life. By addressing both professional and personal needs, schools and communities can create a sustainable and thriving teaching profession. As stated by Kelly et al. (2022) family-friendly policies within schools and community resources for teachers' families further contribute to a supportive ecosystem for educators.

Active engagement and involvement of teachers in community and school organizations can lead to stronger ties and increased job satisfaction. When teachers participate in community events and school decision-making processes, they develop a deeper connection to their environment and feel more invested in their work (Geurts et al. 2024). This involvement also promotes mutual respect and understanding between teachers and community members, fostering a positive and supportive atmosphere that benefits both teachers and students.

Teacher embeddedness theory, encompassing fit, links, and assets, provides a comprehensive framework for understanding the factors that contribute to teacher retention. By fostering alignment between teachers and their school environments, enhancing social connections, and increasing the tangible and intangible benefits associated with teaching, schools and communities can effectively support and retain their educators. The theory views individuals as deeply intertwined in their job through a complex network of connections, both psychological and practical, anchoring them in place.

Table 1. The teacher embeddedness framework (Larkin et al., 2021, p.19).

Component	Domain	Definition
Fit	Organization	The comfort and compatibility of an individual with respect to the local educational context. This includes the degree to which the aspirations, career goals, values, culture, and worldview of the teacher are aligned with the environment of the local educational context in which an individual is employed.
	Community	The comfort and compatibility of an individual with respect to the local community. This includes the degree to which the aspirations, career goals, values, culture, and worldview of the teacher are aligned with the environment of the local community in which an individual works.
Links	Organization	Personal relationships and connections made with colleagues, students, and others within the local educational context.
	Community	Personal relationships and connections made with individuals and groups within the local community, which may include family, consumer, religious, and other social affiliations.
Assets	Organization	The sum of the tangible and intangible benefits from a job to an individual in terms of perceived material and psychological value. Such assets may include salary, workplace space and materials, perquisites, established patterns of working, and support for professional growth.
	Community	The sum of the tangible and intangible benefits from the local community to an individual in terms of perceived material and psychological value. Such assets may include housing, sense of place, established patterns of living, personal safety, and other aspects of quality of life influenced by the community.

Previous research suggests that a meaningful sense of connection is composed of three central concepts of fit, links, and assets (Larkin, 2021) that the teacher embeddedness theory suggests:

- **Fit** refers to how well a teacher's values, skills, and career goals align with the demands and culture of a rural school. Teachers who feel a strong fit are more likely to be satisfied and committed to their work. Understanding how

teachers perceive this alignment is crucial for creating conditions that attract and retain educators. Without their insights, strategies may fail to address the specific challenges and opportunities that influence whether teachers feel they belong in a rural setting.

- **Links** represent the relationships and connections that teachers establish within the school and the broader community. These connections can be powerful factors in a teacher's decision to stay. Teachers' perspectives on the quality and significance of these relationships provide valuable information for developing support networks and community integration initiatives that strengthen retention efforts. Ignoring these insights risks overlooking the relational dynamics that are vital for sustaining a committed teaching force in rural areas.
- **Assets** include the benefits and resources that teachers perceive as valuable in their professional and personal lives. Teachers' perspectives on what they consider essential—such as professional development opportunities, housing, or work-life balance—can guide policies that enhance these assets. If policymakers and administrators do not consider what teachers value, efforts to improve attraction and retention in rural schools may fall short, leaving teachers feeling unsupported and undervalued.

Incorporating teachers' perspectives on fit, links, and assets is essential for developing effective strategies that address the unique challenges of rural education. By listening to teachers

and integrating their views into policy and practice, rural remote schools can create environments that not only attract educators but also encourage them to stay and thrive.

Application of Teacher Embeddedness Theory to Rural Remote Schools

Previous research using teacher embeddedness theory has demonstrated its value as a framework for understanding the factors which impact the process of attracting and retaining teachers. Findings have shown that teachers are more likely to take up a position and stay in their positions when they perceive a good fit, connected to their schools and communities, with the school culture, and value the assets of their work.

In the context of rural remote schools, geographic isolation can limit teachers' opportunities to build strong social and professional networks, making it difficult to develop a sense of belonging. Additionally, the unique cultural and social dynamics of rural communities may not always align with teachers' personal values and preferences. Furthermore, the limited resources and infrastructure often found in rural remote schools can impact teachers' job satisfaction and overall well-being.

By understanding the factors that contribute to teacher embeddedness, school districts can develop targeted strategies to recruit and retain qualified educators in these challenging environments. For example, providing opportunities for professional development, mentoring, and community engagement can help teachers build strong connections and a sense of belonging. Additionally, offering competitive compensation packages, flexible work arrangements, and support for work-life balance can improve job satisfaction and reduce turnover.

Area for Further Research

Current literature increasingly recognizes the unique challenges, opportunities, and resources in rural communities. However, education improvement efforts over the past two decades have largely focused on urban schools (McShane & Smarick, 2018), often neglecting the needs of rural students. While studies emphasize the importance of community factors, they also highlight the significance of personal connections to the school and community. The teacher shortage calls for targeted strategies to improve attraction, retention, and reduce attrition to stabilize the workforce and enhance student outcomes. Despite this, there remains a notable gap in research on rural teachers, as most studies address general attrition without considering the distinct challenges faced in rural settings (DeAngelis & Presley, 2011; Henke & Zahn, 2001; Ingersoll, 2001; Ingersoll & Strong, 2011; Loeb, Darling-Hammond, & Luczak, 2005). However, despite the apparent role of community in rural teacher attraction and retention, there has been no research into rural remote K-12 teachers' perspectives on how their personal sense of connection to their school and community influences their decision to accept and/or stay in a rural remote teaching position.

Rural schools may face challenges such as declining enrollment due to population shifts to urban areas, potentially affecting funding, resources, and educational programs (Ingersoll & Tran, 2023). Similarly, resource limitations, including outdated materials, insufficient technology, and a shortage of specialized staff, could be issues in Southeastern Montana, though further research is needed to confirm this (Showalter et al., 2017; Biddle & Azano, 2016). Geographic isolation might also impact education quality and complicate teacher attraction and retention in remote areas, where fewer amenities and professional growth opportunities are

available (Monk, 2007). Declining populations and limited resources could strain rural schools in Southeastern Montana. Addressing these challenges requires targeted policies, including increased funding, teacher incentives for remote areas, and leveraging technology to improve learning.

Rural schools, located in isolated areas with low population densities, often face unique challenges such as small student populations, multi-grade classrooms, and limited access to advanced coursework (Arnold et al., 2005; Provasnik, 2007). They serve as community hubs but operate with lower funding, hindering facilities, instructional resources, teacher salaries, and professional development (Jimerson, 2005; Schafft, 2016). Limited technology and infrastructure further constrain modern educational practices and learning opportunities (Howley & Howley, 2010).

Southeastern Montana's rural remote schools face challenges such as teacher shortages due to remote locations, limited amenities, and vast distances between schools and administration, complicating recruitment and logistics (Montana Office of Public Instruction, 2023). While nationwide teacher shortages persist, the issue is particularly acute in rural areas, leading to educational disparities and instability (Garcia & Weiss, 2019). Research on teacher attraction and retention often focuses on urban settings, leaving gaps in understanding rural educators' experiences. Addressing this requires targeted studies, collaboration with rural schools, and a comprehensive approach to explore the complex factors influencing rural teacher retention.

Innovative efforts have been designed to recruit teachers to rural schools (Barbosa Jr. & Coneway, 2023), but there remains a critical gap in understanding the specific factors that attract

teachers to take a position in a rural remote school and influence their decisions to remain in these educational settings. This gap in research into the nuanced aspects of both the attraction and retention of teachers in rural remote schools hinders the development of effective, targeted strategies and policies to mitigate teacher shortages and sustain educational quality. Thus, it is essential to gain a deeper comprehension of the pivotal factors that attract and retain teachers in rural remote schools. Investigating rural remote teachers' perspectives is integral to fostering positive change and sustainability in rural education.

Chapter Summary

The literature review has highlighted the unique challenges faced by rural schools in attracting and retaining qualified teachers. Teacher embeddedness theory provides a useful framework for understanding the factors that influence teacher attraction, retention, and attrition. Despite the growing body of research on teacher shortages in rural schools, there remains a significant gap in our understanding of the specific challenges faced by rural remote schools. Further research is needed to explore the unique factors influencing rural remote teacher attraction, retention, and attrition in these contexts, particularly through the lens of teacher embeddedness theory.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter provides an overview of the study's design, detailing its methodology, participant selection, research questions, and the researcher's role. It also provides a description of data collection and analysis procedures and measures taken to ensure credibility of the findings. The purpose of this study is to delve into the perspectives of rural remote teachers in Southeastern Montana to better understand the factors that influence their decisions to accept and maintain teaching positions in rural remote contexts. By examining the teachers' perceptions of fit, links, and assets, this research aims to identify strategies to attract and retain qualified teachers in rural remote areas. To address this purpose, the following research questions guided this inquiry:

For rural remote teachers in Southeastern Montana who are currently in the profession:

1. Which embeddedness factors influenced your decision to accept your teaching position?
2. Which embeddedness factors influence your decision to continue in the position?

For rural remote teachers in Southeastern Montana who have recently left the profession:

1. Which embeddedness factors influenced your decision to accept your teaching position?
2. Which embeddedness factors influenced your decision to leave your position?

Research Design and Rationale

To answer the research questions, the study adopted an exploratory case study framework, in order to capture the meanings derived from individuals' lived experiences (Creswell, 2013). According to Creswell, this approach is particularly effective for understanding the shared experiences of multiple individuals facing similar situations (Creswell, 2013). By investigating teachers' descriptions of the factors that influence their decisions to accept and maintain teaching positions in rural remote contexts, may help to inform district and state-level practices and policies designed to mitigate the teacher shortage in rural remote Southeastern Montana schools.

The study specifically examined rural remote teachers' perspectives on the role that six embeddedness factors play in attraction, retention, and attrition for teaching positions in rural remote schools. These factors include school fit, which refers to how well teachers feel they align with the school's environment and culture; school links, which are the connections teachers have with colleagues, administrators, and the broader school network; school assets, which encompass the resources and support available within the school to help teachers succeed. Similarly, community fit pertains to how well teachers feel they integrate into the surrounding community; community links refer to the relationships teachers have with local organizations, residents, and networks; and community assets are the resources and opportunities available within the community that can support teachers' professional and personal lives.

Findings from the qualitative data collected through interviews will help rural remote schools better understand how they can influence teachers' attraction, retention, and attrition. By exploring themes, core ideas, and emerging categories, this research aims to identify the

characteristics and qualities that can improve teacher attraction and retention. The findings have the potential to contribute to the development of best practices, policies, and procedures that support the enhancement of rural school districts in Southeastern Montana, ultimately helping to attract and retain teachers.

The Rural Context for this Study

State of Montana

Montana spans 145,000 square miles and serves roughly 148,585 K-12 students, (Montana Office of Public Instruction, 2024), with a population density of fewer than 7 people per square mile (National Center for Frontier Communities, 2014). This sparse population has shaped the state's educational landscape, which consists of over 800 schools across approximately 400 public school districts. Montana is home to the highest percentage of rural schools and small rural districts in the United States, with 96 percent of its school districts classified as rural (Showalter et al., 2017). More than half of the state's schools enroll fewer than 100 students, and 65 are classified as "one-room schoolhouses." Only 52 schools (6 percent) have student populations exceeding 500 (Montana Office of Public Instruction, 2021).

Montana's vast geography and low population density give rise to a complex and dynamic rural culture in its communities, shaped by a unique mix of social, economic, political, cultural, and historical factors. The state is the fourth largest in the U.S. in square miles, with just over one million residents scattered across its prairies, rivers, lakes, and mountains. In terms of rural education, nearly one in three public school students in Montana attends a rural district. Montana is one of only three states—along with Vermont and North Dakota—where more than 90 percent of rural districts serve fewer than 485 students. This widespread rural structure,

combined with isolated communities, positions Montana as a rural frontier state, further accentuating the challenges faced in its educational system (Montana Office of Public Instruction, 2021).

Rural Southeastern Montana

Rural Southeastern Montana is defined by its expansive, sparsely populated landscapes, which contribute to its unique geographic location. The region is characterized by vast plains, rugged terrain, and limited infrastructure, making it one of the most isolated areas in the United States (Erickson et al., 2018). With a low population density, communities often face long travel distances to reach essential services such as education, healthcare, and economic opportunities, further exacerbating the challenges of living in such remote areas (Maxwell et al., 2017). The region's harsh climate, marked by extreme winters and hot, dry summers, complicates daily life and work (Ratcliffe, 2019). Despite these difficulties, the strong community ties and deep connection to the land remain vital aspects of life in this rural area, influencing the social and cultural dynamics of its residents (Schafft, 2016). The agricultural way of life fosters a strong sense of resilience and self-reliance among the residents, who have adapted to the demands of their environment over generations.

The southeastern region of Montana spans over 32,000 square miles and is home to a population of 35,100, with a relatively low population density compared to other parts of the state (Montana Department of Commerce, 2024; U.S. Census Bureau, 2020). The region's economy is primarily driven by agriculture, energy, and resource extraction, with a strong emphasis on ranching and farming (Montana Department of Agriculture, 2023). This region includes seven counties—Carter, Custer, Dawson, Fallon, Garfield, Prairie, Powder River,

Rosebud, and Wibaux —which are known for their rich history, expansive landscapes, and a mix of rural communities (Montana History Project, 2023).

Southeastern Montana is served by 27 school districts that range from small rural schools to larger district schools (Montana Office of Public Instruction, 2024). The schools offer a variety of programs designed to meet the needs of their communities, and despite budget constraints and limited resources, these schools continue to serve their students well (Tieken & Montgomery, 2021). Some districts manage small, tight-knit schools with fewer than 100 students, while others have more substantial enrollments (Montana Education Association, 2023). The teacher-to-student ratio is 14:1, with dedicated educators working hard to provide a quality education despite the region's geographic and economic challenges.

The educational landscape of the region is further shaped by the unique structure of the schools. There are multiple K-8 school districts within a single county, often resulting in a town being divided into two school districts, with one high school per county serving multiple K-8 schools. Five of the seven counties have only one high school per county. The schools in the region face unique hurdles, including attracting and retaining teachers in more remote areas (Montana Association of School Administrators, 2023). However, the tight-knit communities and strong local support make education a central pillar of life in southeastern Montana, fostering both academic growth and community cohesion (Montana Rural Education Association, 2024).

For the purposes of this study, Southeastern Montana followed the guidelines set by the Southeast Region Montana Association of School Superintendents (SE-MASS), which includes the counties of Carter, Custer, Dawson, Fallon, Garfield, Prairie, Powder River, Rosebud and

Wibaux. The Montana Association of School Superintendents (MASS) represents school superintendents across the state and is organized into 9 regions that collaborate closely with the Office of Public Instruction (OPI) staff to support students. MASS is an affiliate of the national American Association of School Administrators (AASA). The organization focuses on advancing educational practices, administrative procedures, supervision, and public relations. Additionally, MASS works to promote professional growth, camaraderie, and loyalty among its members (opi/mt/gov). This study was conducted within the Southeast region of MASS and is referred to as SE-MASS in this study. These counties are recognized for their rural and remote characteristics, further highlighting the unique educational and logistical challenges they face and are featured in the light blue section of the map.



Figure 1.Montana Association of School Superintendents Membership Regions https://opi.mt.gov/Leadership/OPI-Communication/MASS-Resources.

The SE-MASS region in southeastern Montana spans approximately 25,745 square miles, making it geographically larger than the entire state of West Virginia, which covers 24,230 square miles and ranks 41st in size among the 50 states. While large in land area, the SE-MASS region is characterized by a low population density, with small, spread-out communities across a wide rural landscape. This combination of size and population offers a unique setting that differs significantly from more densely populated parts of the country.

Description of the Case

For this study, teachers in the following counties and communities (Table 2) were invited to participate in interviews exploring the types of embeddedness factors which influence the attraction, retention, and attrition of rural remote educators. The counties included in the chart are classified based on their geographic isolation, as these counties are situated more than 25 miles from Urbanized Areas and more than 10 miles from Urban Clusters, according to the U.S. Census Bureau's definitions. While the NCES categorizes towns within rural remote areas, all the counties listed here fit the criteria of being rural due to their distance from more densely populated urban centers. This categorization is based on their geographic isolation, as they are situated more than 25 miles from Urbanized Areas and 10 miles from Urban Clusters, as defined by the U.S. Census Bureau.

Table 2. Description of counties in Southeast Montana (U.S. Census Bureau).

County	Description and Square Miles	Population	Towns with High Schools
Carter	A county with a strong ranching heritage, known for its open plains and dinosaur fossils covering 3348 sq. miles	1,200	Ekalaka
Custer	Home to Yellowstone River and the Tongue River confluence, offering natural beauty and recreational opportunities covering 3783 sq. miles.	11,900	Miles City
Dawson	A county with a mix of agriculture and energy production, including oil and gas covering 1191 sq. miles. (only a part of Dawson County is served by SE-MASS)	8,300	Glendive
Fallon	Primarily agricultural, with ranching and farming as major industries covering 1623 sq. miles.	2,700	Baker, Plevna
Garfield	A sparsely populated county with a focus on ranching and agriculture covering 4849 sq. miles.	1,200	Jordan
Prairie	Prairie County was formed in February of 1915 from part of Custer County, Dawson County, and Fallon County covering 1737 sq. miles.	1,088,	Terry
Powder River	A county with a strong emphasis on energy production, particularly coal mining covering 3297 sq. miles.	1,700	Broadus
Rosebud	A county with a mix of agriculture, energy production, and Native American cultural heritage covering 5027 sq. miles.	8,100	Forsyth, Colstrip, Lame Deer, Ashland, Rosebud
Wibaux	Wibaux County was created by the Montana Legislature in 1914 from parts of Dawson, Fallon, and Richland Counties covering 889 sq. miles.	937	Wibaux

The Participants for the Study

Rationale for Sample Selection

A purposive sampling strategy was employed in this exploratory case study. This approach was chosen for this study to identify and invite participants who would be able to provide relevant, rich, and insightful data to help answer the study's research questions regarding the factors which influence teachers' decisions for taking, staying, or leaving a position in an SE-MASS school. This approach prioritized inviting teachers with a deep understanding of the unique challenges and opportunities associated with teaching in rural remote Southeastern Montana.

Description of the Participants

To identify potential participants, a list of current and former teachers was obtained from superintendents of all schools in the SE-MASS region (N=20). From this list, the researcher aimed to identify approximately 10 current teachers (5 elementary and 5 secondary) and 10 former teachers (5 elementary and 5 secondary) who had previously taught in the region. Ultimately, 20 teachers participated in the study. Of these, 9 were former teachers, and 11 were still actively teaching at the time of the interview. The sample included educators representing grades K through 8, and participants were recruited using a snowball sampling method. Participants who agreed to take part were described in detail to provide a rich and authentic portrayal of their experiences. While the original intention was to include teachers from across the full K–12 spectrum, the final participant pool included only those with experience teaching grades K–8.

Invitation of the Participants

The initial invitation for each teacher was made via email, followed by a phone call to discuss an overview of study, answer any questions, and determine a time and place when the interview is to be conducted. The goal of securing a total of 20 participants—10 current and 10 former teachers—was met, with a final sample of 11 current teachers and 9 former teachers completing the semi-structured interview process, all having K-8 teaching experience.

Semi-Structured Interview Protocol

To gain a comprehensive understanding of the participant's experiences as a rural remote teacher, this study employed a semi-structured interview protocol (Appendix A). Interviews were conducted in person whenever possible and via Zoom when an in-person meeting is not available. Informed consent information was provided to all participants, outlining the purpose of the study, the procedures involved, and the potential risks and benefits.

The interviews began with a brief introduction, followed by a discussion of the participants' background and experiences in education. The interviews then moved to specific questions regarding the factors that influenced their decision to accept a teaching position in a rural remote area, as well as the factors that influence their decisions to continue in the position or leave the position.

A key component of the interview was a journey mapping exercise (Campbell, 2013). This technique asked the participant to talk through key stages of their teaching career, such as the initial decision to teach in a rural area, the application and hiring process, the first year of teaching, career progression, and the decision to stay or leave the position. Open-ended questions

were used to encourage detailed responses and to explore the challenges, rewards, and factors that influenced their decisions at each stage.

Journey mapping is a data collection method that involves tracking and documenting the experiences of teachers throughout their career paths through self-reporting. This methodology offers a comprehensive view of the stages and transitions teachers experience, from their initial decision to enter the profession to their eventual departure or ongoing career development. Journey mapping, (Samson et al., 2017), used in social psychology, helps gather data on how personal experiences inform individuals' understanding of themselves and others within specific contexts (Ostrom et al. in 2011). Journey mapping involves collecting data through a combination of interviews and self-reporting mapping to create a detailed narrative of each teacher's professional journey. The significance of this method lies in its ability to identify critical moments, pain points, key decision-making incidents (Campbell, 2013), and embeddedness factors that influence teacher attraction, retention, and attrition. Using journey mapping alongside interviews can provide both a broad overview and detailed insights into the participant's experiences.

In this study, formal journey maps were not created; rather, the principles of journey mapping were applied to the interview process. These principles were used by the interviewer to guide conversations and provided an additional way to capture the depth and richness of their career experiences. This holistic approach ensured that the research captures all relevant factors, offering a well-rounded and comprehensive understanding of the subject matter. This data collection method strengthened the reliability of the findings and provides a multi-dimensional perspective critical for addressing the research questions.

After the initial interview questions, the participant and the interviewer filled out a journey map together. The journey map was a visual representation of key stages in their teaching career. A pre-drawn template was used, which included various points along their career path, such as the decision to teach in a rural remote area, the application and hiring process, their first year of teaching, career progression, and the decision to stay or leave the position.

Open-ended questions were asked to guide the discussion at each stage. The participant responded by marking the map, highlighting key moments, and sharing their thoughts about the challenges, rewards, and factors that influenced their decisions at each point. The idea is to help the participants reflect on their personal and professional journey and to uncover the embeddedness factors that have shaped their experience in rural remote education. This gave a clearer, more detailed understanding of the participants' unique path and the decisions that have influenced it.

Finally, the interview concluded with a reflection on the participant's overall experiences and ask for the individual’s suggestions for improving teacher attraction and retention in rural remote areas. Throughout the interview, the researcher maintained a flexible and adaptable approach, allowing the conversation to flow naturally and encouraging open and honest dialogue.

Field Notes

Field notes are a crucial tool for qualitative researchers, providing a rich source of data which can be used to support the data analysis and interpretation of the findings. In this exploratory case study of the perspectives of rural remote teachers, field notes were used to document researcher observations of physical settings, social interactions, and non-verbal cues.

Additionally, field notes were used to record personal reflections, emerging themes, and methodological considerations. By capturing direct quotes, paraphrased summaries, and personal impressions from interviews, field notes helped to inform data analysis, coding, categorization, and cross-case analysis. To maximize the effectiveness of field notetaking, notes were detailed, objective, timely, organized, and reflective. Field notes consisted of memos to record thoughts, interpretations, and emerging insights during the data collection process. These notes served as a written log containing details such as the interviewee's information, interview schedules, and other pertinent information. While the primary aim was to capture interviews verbatim, the documentation log also served as a tool to track the essence and meaning of responses, facilitating a deeper understanding of participant perspectives.

Data Sources and Data Collection Procedures

The study utilized thematic analysis to identify patterns and themes within the data collected from interviews with rural remote teachers. This approach allowed for a deep understanding of the experiences and perspectives of these educators. By reviewing and coding the transcripts multiple times, key themes were identified and organized into cohesive categories. These findings are presented through a narrative description, supported by quotes and examples from the participants' responses.

To ensure the credibility and trustworthiness of the findings, a reflexive approach was taken, acknowledging and discussing any potential biases or preconceptions. Member checking was also employed to validate the interpretations with the participants. To gain further insights into the teachers' experiences, journey mapping was used. By creating visual representations of their journeys, teachers reflected on key interactions, challenges, and opportunities. Participants

signed a consent form at the beginning of the interview and were told they were able to stop the interview at any time.

Data Analysis Procedures

This study has been designed as an exploratory case study following the principles outlined by Creswell (2013). There are four primary forms of data analysis and interpretation used in case study research -- narrative analysis, pattern matching, explanation building, and theory building. The current study used the pattern matching approach for data analysis to compare the collected data with the existing theory of teacher embeddedness. By identifying similarities and differences between the existing theory and the data collected in this study, the research confirmed and expanded the established theory, and potentially uncover new patterns relevant to the attraction, recruitment, retention and attrition of rural remote teachers in Southeastern Montana.

Transcribing and Segmenting Interviews and Field Notes

The audio recordings were transcribed verbatim, followed by multiple readings of each participant's complete response to identify initial statements, quotes, and themes of significance. Each participants' response and all field notes were divided into distinct segments that could be meaningfully coded. Each segment was assessed to identify key points, common aspects, and unique or divergent statements and these were recorded in the form of margin notes (Creswell, 2013).

Creating and Assigning Data Codes for the Interviews and Field Notes

Margin notes were organized to identify common and distinct features, and these formed a preliminary set of codes. This process of open coding (Creswell, 2013) was used to generate a working definition for each code, and this helped to manage the data in a systematic fashion. To verify the accuracy of the preliminary codes, a sample of the coded data was selected, and each segment was assigned a code based on the working definition. The coding was then reviewed for consistency, with attention to any discrepancies or areas where codes may require refinement. In cases where coding differences arise, the segment was re-examined to ensure clarity and agreement on the most appropriate code, or an additional code was created to more accurately represent its meaning (Creswell, 2013).

The coded data was organized into categories that accurately represent the complexity of the data and best answer the study's research questions. An example from the data was provided for each code and each category. This process of axial coding supported the validity of the findings. A visualization of the emerging themes was also developed using a concept map along with a table to display the categories and supporting evidence from the participants' statements. Various data display techniques, such as matrices, diagrams, and timelines, were planned for utilization. These visual representations facilitated the identification of emerging themes and support the development of a comprehensive understanding of the experiences of rural remote teachers. By effectively condensing and displaying the data, meaningful conclusions were drawn.

Treatment of Anomalous and Missing Data

Anomalous and missing data can pose challenges in qualitative research. To address anomalous data, strategies such as reflexivity to consider personal biases, theoretical sensitivity to explore the data within a broader framework, and triangulation to verify findings with other data sources were employed. For missing data, rigorous case study design, persistent observation, member checking, and reflexive journaling helped mitigate the impact. By carefully considering these approaches, the quality and reliability of the findings was enhanced.

Generating and Verifying Findings

To ensure the credibility and trustworthiness of the findings, a reflexive process was undertaken, considering potential biases and assumptions and their influence on the research. Triangulation, comparing field notes with interviews and the journey mapping, strengthened the validity of the findings and identify potential discrepancies. Through careful analysis of field notes, a deeper personal awareness of potential biases and assumptions was achieved, working towards a critical and objective analysis. Additionally, member checking was employed by sharing interview transcripts with participants to ensure accuracy, validate interpretations, and identify any discrepancies. By combining these strategies, the aim was to produce rigorous and insightful findings that contribute to a deeper understanding of the experiences and challenges faced by rural remote teachers.

Study Trustworthiness and Credibility

The credibility of this study relied on specific protocols established for data collection. All data was kept in strict confidentiality in accordance with the guidelines of the Institutional Review Board (IRB) of Montana State University. Prior to conducting the study, IRB approval

was obtained, and participants signed a consent form. To protect the identity and maintain the confidentiality of participants, identifying information was removed or withheld from all reporting and documentation. Contact information was kept separate from the data in a secure location. The researcher's personal computer was used to store the data, and an audio recorder or Zoom application on the computer recorded the interviews in their entirety. Shredding all documents at the end of the study upheld the confidentiality of the participants.

To ensure the credibility of the data collection and analysis, a comprehensive record-keeping system was implemented. Each interview was recorded and transcribed verbatim, and a written log was maintained, containing the interviewee’s information, interview schedules, and other relevant details. The documentation log serves as a tool to track the essence and meaning of the responses provided, facilitating an in-depth understanding of the participants' perspectives. This meticulous approach aimed to uphold the credibility and trustworthiness of the study's findings, providing a robust foundation for the exploration of rural teacher experiences in Southeastern Montana.

This approach was designed to maintain the credibility and trustworthiness of the study's findings, providing a solid foundation for exploring the experiences of rural teachers in Southeastern Montana. Several limitations impact this study and must be taken into careful consideration when interpreting its findings. The primary limitation stems from the extensive population size under examination, which poses significant challenges in securing a sample that adequately represents the entirety of the population through interviews. Additionally, the reliance on self-reporting methods introduces the potential for response bias, wherein participants might tailor their responses to align with perceived expectations or social desirability. Therefore, this

study crafted interview questions encouraging participants to share their experiences comfortably and as fully as possible.

Chapter Summary

This chapter outlines the research design and methodology employed to investigate the experiences and perspectives of rural remote teachers in Southeastern Montana. A qualitative, case study approach was selected to provide a rich and in-depth understanding of the complex factors influencing teacher attraction, retention, and attrition in these unique settings.

To collect data, semi-structured interviews were conducted with both current and former rural remote teachers. These interviews incorporated a modified journey mapping technique to explore participants' experiences. Data analysis involved thematic analysis, a method that allowed for the identification and categorization of key themes within the transcripts.

Several methodological strategies were employed to ensure the rigor and trustworthiness of the study. These included purposive sampling to select participants with relevant experiences, member checking to validate findings with participants, and reflexivity to acknowledge the researcher's own biases and assumptions. By combining these research methods, this study aimed to contribute to a deeper understanding of the challenges and opportunities faced by rural remote teachers and provide valuable insights for policymakers and educational leaders.

CHAPTER FOUR

RESULTS

Introduction

This exploratory case study applied the Teacher Embeddedness Framework (TEF) to examine rural remote teachers' perceptions of the factors influencing attraction, retention, and attrition in K-8 teaching positions in Southeastern Montana. Data were collected through a semi-structured interview protocol which incorporated the principles of journey mapping in order to investigate how fit, links, and assets within both the school and community shape teachers' decisions to accept, remain in, or leave their roles. This chapter presents the results of the data analysis and reveals both how teachers experience embeddedness within their rural remote schools and communities and how these embeddedness experiences influence their career decisions. The chapter provides a description of the study participants, followed by an analysis of key themes that emerged from the data. The findings are organized in alignment with the research questions, first identifying patterns related to initial attraction to rural remote teaching, then examining the factors that contribute to retention, and finally exploring the reasons teachers choose to leave.

Participants

A purposive sampling strategy was used in this case study to identify and invite participants who could provide relevant, rich, and insightful data on the factors influencing the attraction, retention, and attrition of teachers in schools located in the SE-MASS region of Southeastern Montana. SE-MASS is a remote rural region of schools in Southeastern Montana,

comprised of nine counties that work together to support education in the area. To identify participants with personal experiences of attraction, retention, and attrition in rural remote Southeastern Montana schools, a list of teachers was requested from the nine superintendents of schools in the SE-MASS region who met the study criteria: teachers who began teaching after 2020 in a rural remote school within the SE-MASS region of Southeastern Montana and either stopped teaching or continued teaching until the current school year of 2025.

A total of 13 names were received from the formal request, and all individuals were invited to participate in interviews. Responses were received from four participants. After conducting interviews with these four teachers, they were asked if they knew of any other teachers who met the criteria and might be interested in participating. This snowball sampling method resulted in additional names and contact information, which were followed up through calls, texts, or emails. Interviews were conducted with all teachers who agreed to participate, and each new participant was asked if they knew of any other teachers who might be interested. This process ultimately led to participation by 11 current teachers and 9 former teachers. The approach ensured broad representation across the SE-MASS region, as well as across grade levels K-8, which included those with experience in the post-COVID period (i.e., teachers who began their positions starting in 2020 and either stayed or left between 2020 and 2025). Participants who agreed to take part in the interview were introduced to the study, completed an informed consent form (Appendix B), and engaged in the semi-structured interview protocol (Appendix A).

A total of 20 interviews were conducted, either in-person or via Zoom, with interview durations ranging from 16 to 44 minutes, averaging 34 minutes. During each video conference or

in-person interview, the audio was recorded using the Voice Memo application and sent to a professional transcription company for verbatim transcription. Each transcription was reviewed and edited as needed to precisely reflect what was said by both the researcher and the participants. All interviews were transcribed within 48 hours of being conducted.

Data saturation, as suggested by Guest et al. (2006), was achieved with 20 participants, with no new themes, ideas, opinions, or patterns emerging after the 20th interview. Once saturation was reached, the data collection process was completed. The transcribed interviews and the journey maps served as the foundation for the data analysis process. Yin (2014) describes data analysis in qualitative research as a process of examining, categorizing, tabulating, or otherwise recombining evidence to address the initial research questions. Yin (2014) emphasizes that the analysis of data is a circular process that involves comparing data with patterns, themes, and theoretical propositions. This study followed this process and included the organizing of the data, coding, and then drawing conclusions that related to the research questions. The data analysis was systematic, and the findings are supported by the evidence collected.

A coding process was used to identify emerging themes, allowing for the analysis of the collected data against the established Teacher Embeddedness Framework. The process revealed patterns that were important to the understanding of embeddedness factors that influence attraction, retention, and attrition among rural remote teachers in Southeastern Montana.

Participants' Journey into the Teaching Profession

Participants described their experiences in detail and provided a rich and authentic portrayal. Names are not included in this chapter in order to protect the confidentiality of both the schools and participants. To protect participant anonymity while allowing for clear

attribution of quotations, each individual was assigned a unique identifier. Participants who remained in their teaching positions were labeled with the prefix **PS** (Participants who Stayed), followed by a number (e.g., PS1, PS2), and those who left were labeled with the prefix **PL** (Participants who Left), followed by a number (e.g., PL1, PL2). These codes were created in order of interview completion and used consistently throughout the report. Pseudonyms were not used to avoid introducing narrative bias or assumptions that might be associated with names. Table 3 presents an overview of participant demographics.

Participant Demographics and Retention Outcomes

Note. This table displays the number and percentage of teachers who stayed or left the profession, disaggregated by demographic characteristics. Percentages represent the proportion of participants who stayed within each subgroup.

Table 3. Teachers who stayed or left by demographic category.

Demographic Category	Subgroup	Stayed (n)	Left (n)	Total (n)	% Stayed
Community of Origin	≤100 miles from hometown	9	6	15	60%
	>100 miles from hometown	2	3	5	40%
Type of Credential	Emergency Authorization	7	4	11	64%
	Traditional License	3	6	9	33%
Preparation Program Type	Fully Online	9	3	12	75%
	Traditional On-Campus	2	6	8	25%
Age	22–26 years	10	3	13	77%
	27–33 years	1	6	7	14%
Gender	Male	2	2	4	50%
	Female	9	7	16	56%

Table 3. Continued

Demographic Category	Subgroup	Stayed (n)	Left (n)	Total (n)	% Stayed
Grade Level Taught	K–2	6	0	6	100%
	3–5	4	4	8	50%
	6–8	1	5	6	17%
Years of Experience	1st year	8	0	8	100%
	2nd year	2	5	7	29%
	3rd year	1	2	3	33%
	4th year	0	2	2	0%
	5th year	0	1	1	0%

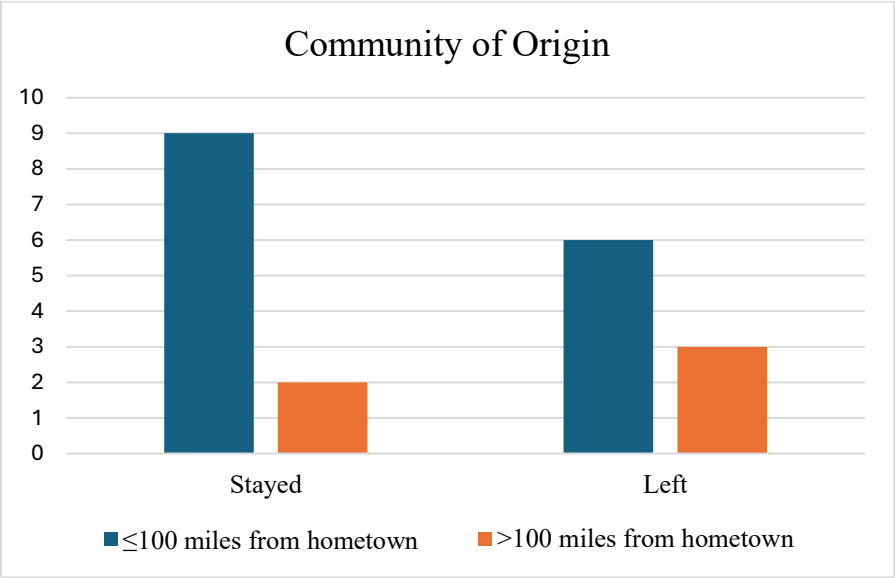


Figure 2. Teachers who stayed or left by community of origin.

As shown in Figure 2, these data reflect trends in teacher retention and attrition across seven demographic categories within a sample of 20 individuals from the SE-MASS region in Southeastern Montana. For the demographic of community of origin, 9 out of 15 teachers working within 100 miles of where they grew up stayed in their positions, while 6 left. In

contrast, only 2 of the 5 teachers working more than 100 miles from their hometowns stayed, with 3 leaving. This suggests that proximity to one's hometown may be associated with higher retention.

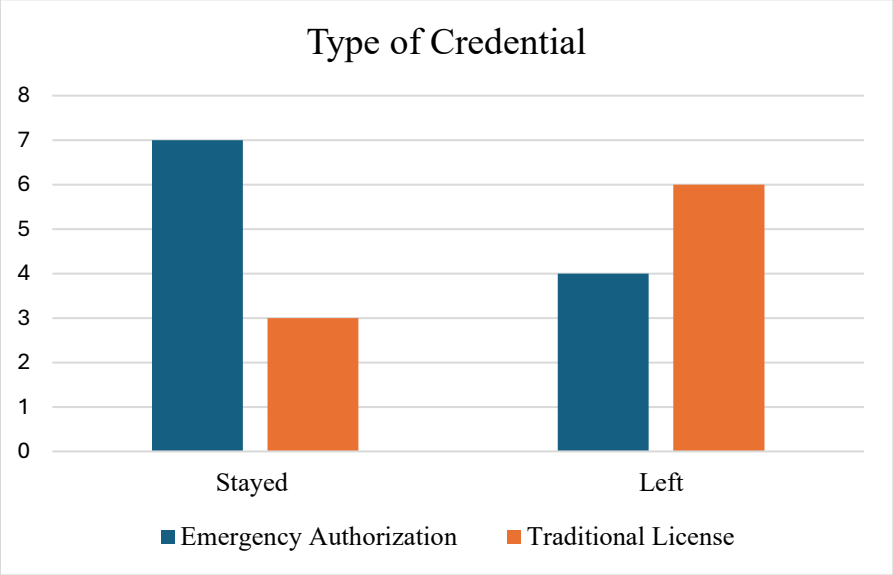


Figure 3. Teachers who stayed or left by type of credential.

When examining the type of teaching credentials (Figure 3), 7 of the 11 teachers who began under an Emergency Authorization stayed, while 4 left. Conversely, only 3 out of 9 teachers who entered with a traditional license remained, while 6 left. This indicates that teachers in this group who entered the profession through alternative or provisional pathways were more likely to continue teaching, at least in the short term.

Similarly, there was a difference between the leavers and stayers based on their teacher preparation program. Among teachers who completed fully online preparation programs, 9 of 12 stayed and 3 left. In contrast, only 2 of the 8 teachers from traditional, on-campus programs stayed, while 6 left. One possible explanation is that individuals who choose online programs

may already have strong commitments to teaching or are better prepared for the realities of the job.

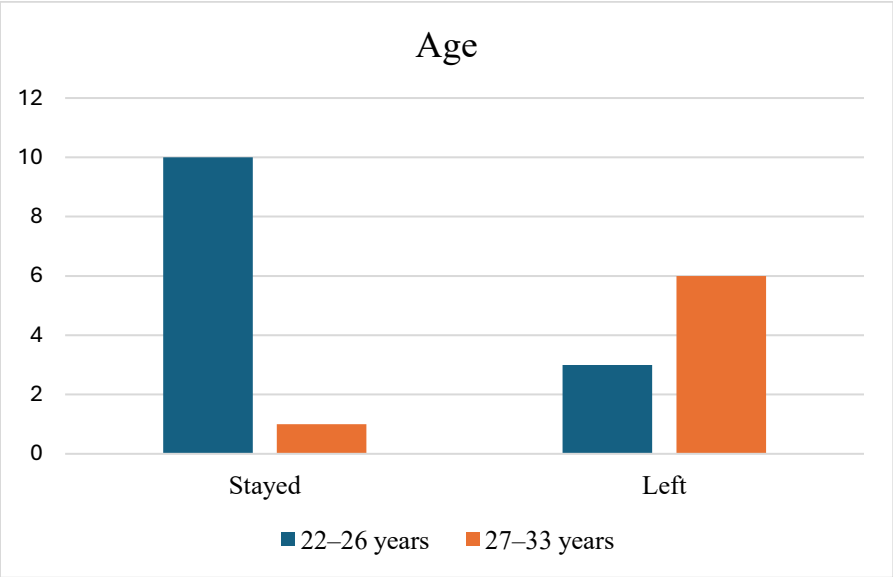


Figure 4. Teachers who stayed or left by age.

As shown in Figure 4, age also appeared to play a role in retention. Among teachers aged 22–26, 10 out of 13 stayed, with only 3 leaving. However, among those aged 27–33, just 1 of 7 remained while 6 left. This may point to potential differences in career timing or life circumstances between the two age groups.

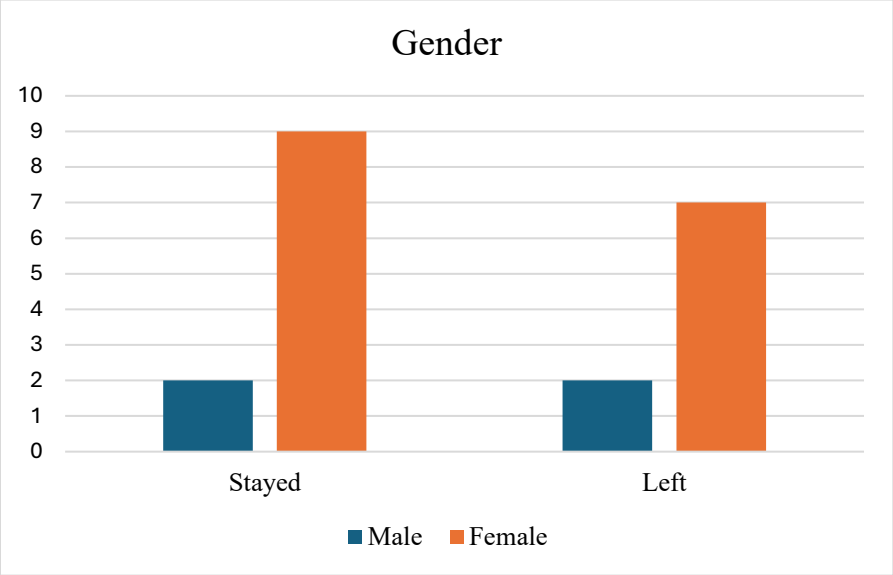


Figure 5. Teachers who stayed or left by gender.

Among male teachers, 2 out of 4 stayed while 2 left; among female teachers, 9 of 16 stayed and 7 left, as shown in Figure 5. While these numbers show a similar distribution between those who stayed and those who left across genders in this sample, they are too small to draw any conclusions. Other factors may have had a more substantial influence on retention.

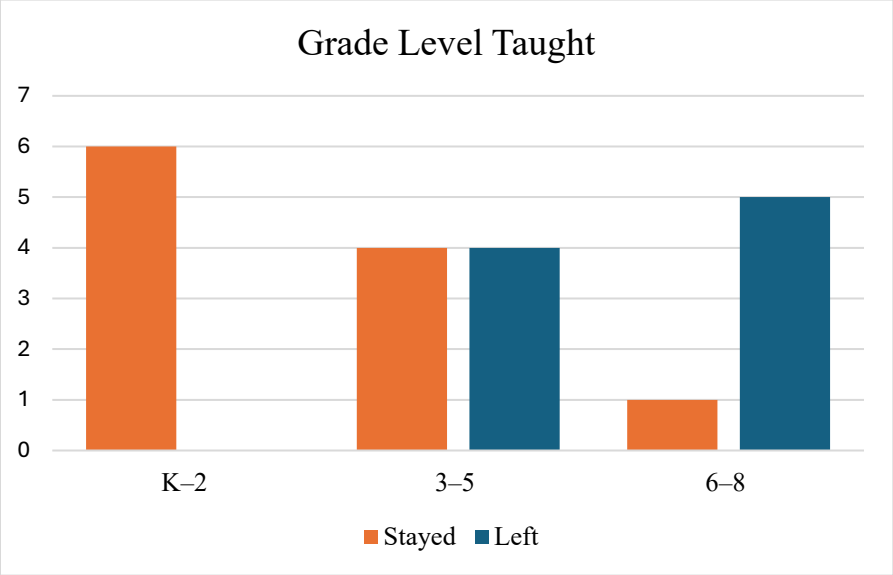


Figure 6. Teachers who stayed or left by grade level taught.

There was a notable difference in retention across grade levels taught (see Figure 6). All 6 teachers of grades K–2 stayed in their roles. Among those teaching grades 3–5, 4 of 8 stayed and 4 left. Retention dropped sharply among teachers of grades 6–8, where only 1 out of 6 stayed and 5 left.

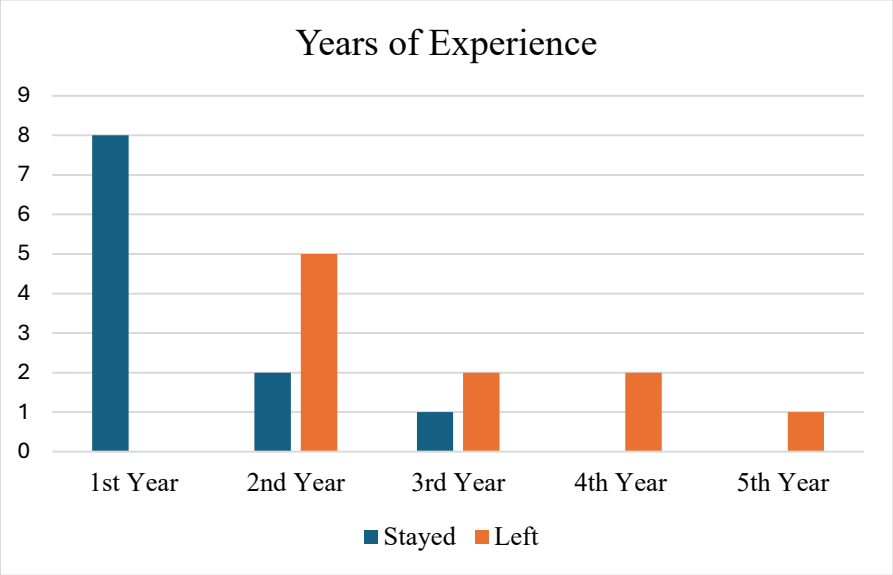


Figure 7. Teachers who stayed or left by years of experience.

Regarding years of experience, as shown in Figure 7, all 8 first-year teachers planned to return, resulting in full retention. However, only 2 of 7 teachers with two years of experience stayed while 5 left. For teachers with three years of experience, 1 out of 3 stayed. Of those with four years, none stayed and 2 left. No teachers in their fifth year remained in their roles. This trend suggests that while early-career teachers may start with strong intentions to stay, challenges in subsequent years contribute to higher attrition. These findings reinforce the need for retention efforts focused on teachers in their initial years to help support long-term careers in education.

Overall, these data suggest that multiple factors can be associated with different retention outcomes. In particular, the chart highlights that teachers who leave tend to do so within the first few years of their careers, with retention rates dropping significantly after the first year. By the fourth year, none of the teachers who were interviewed remained, showing the rapid decline in retention over time. This pattern indicates that early-career attrition is a large issue. The demographics of those who leave provide further insight. For example, those teaching beyond

100 miles from their hometown, those with traditional teaching licenses, and those who completed on-campus preparation programs had lower retention rates. To address this trend, targeted retention efforts may be necessary within the first three years of teaching.

To guide the interpretation of the patterns which emerged from the interview responses, this study chose to apply a theoretical lens that specifically addresses the complexities of teacher retention in educational settings. The Teacher Embeddedness Framework (TEF) (Larkin et al., 2021) builds on Job Embeddedness Theory (JET) (Mitchell et al., 2001) to examine the factors that influence teacher retention, particularly within the unique context of education. Larkin et al. (2021) identified six key embeddedness factors that impact a teacher's decision to stay: fit, links, and assets within both the school (organizational) and community domains. The embeddedness factor named "fit" refers to how well a teacher aligns with the culture, values, and expectations of the school and community. The embeddedness factor named "links" represents the professional and personal connections that teachers establish within their school and local environment, which can serve as a source of support and professional growth. The embeddedness factor named "assets" encompasses the tangible and intangible benefits associated with being part of a school and community, such as job stability, specialized skills, or deep-rooted relationships.

Findings

To explore the perspectives of Southeastern Montana teachers who were employed during the post-covid period of 2020-2025, regarding the role embeddedness factors played in their experiences, this study was guided by the following research questions:

1. For rural remote teachers in Southeastern Montana who are currently in the profession:

    a. Which embeddedness factors influenced their decision to accept their teaching position?

    b. Which embeddedness factors influence their decision to continue in the position?

2. For rural remote teachers in Southeastern Montana who have recently left the profession:

    a. Which embeddedness factors influenced their decision to accept their teaching position?

    b. Which embeddedness factors influenced their decision to leave their position?

These questions were created to help identify the embeddedness factors of fit, links, and assets in both schools and communities that attract teachers to rural remote settings and influence their decisions to stay or leave. Thus, the following sections present the study's findings in three parts. The first section details the results of the analyses of embeddedness factors related to attraction to rural remote schools and communities. The second section examines the findings regarding embeddedness factors that influence teachers to stay in their teaching position, and the final section highlights the embeddedness factors that influence teachers to leave a rural remote teaching position.

The Teacher Embeddedness Framework (TEF) components—fit, links, and assets—are deeply interconnected and often overlap in practice, making them difficult to isolate. These elements interact dynamically, shaping teachers' experiences and influencing their decisions to

stay or leave. Over time, one factor may evolve into another, reflecting changes in a teacher's career or personal life. Therefore, applying the TEF requires a flexible, holistic approach that acknowledges the fluid, context-specific nature of embeddedness. Effective retention strategies must address these overlapping dimensions to support educators, especially in rural and remote settings.

Attraction to Teaching in Rural Remote Schools and Communities

Aligned with the findings presented in Larkin et al.'s (2021) case study, the findings from this study illustrate teacher embeddedness across the three components of the TEF—fit, links, and assets—both in terms of the school organization and the community. While the findings are presented in discrete sections to illustrate the importance of each component of the framework, it is also important to consider the significant overlap between them. The components of fit, links, and assets are deeply interwoven in the ways they shape teachers' experiences and decisions. Data analysis revealed several embeddedness factors that served to attract teachers to consider taking a position in a rural remote school and community. This section examines the factors influencing rural remote teachers in Southeastern Montana to accept positions, framed by the research question: Which embeddedness factors influenced their decision to accept their teaching position?

Attraction to the Teaching Profession

To understand why teachers were drawn to teaching in their particular rural remote schools and communities, it is important to recognize the broader feelings that led them to the teaching profession in the first place. The principles of journey mapping which were integrated

into the semi-structured interview protocol helped to reveal some of the foundational aspirations which played an important role in teachers' eventual decisions to teach in a rural remote setting.

For many, teaching had been a lifelong aspiration—14 of the 20 participants shared that they had always known they wanted to be teachers. One participant recalled, "I knew since sixth grade I wanted to be a kindergarten teacher," (PS4) while another shared, "I always thought about teaching, even as a kid. It just felt like what I was supposed to do." (PL5) Yet another said, "I have always known that I wanted to be a Kindergarten teacher, there really was no question about anything else." (PS1) Still another mentioned, "My grandma is a teacher, my aunt is a teacher, my mom is a teacher, it was just in my family!" (PS9)

Others, however, found their way into the field later, influenced by life experiences or college courses in counseling, psychology, or social work. One teacher, reflecting on their journey, initially pursued nursing before realizing it was not the right fit, stating, "I actually started in nursing, and knew I hated it." (PL1) Drawn back to what felt familiar, they discovered a passion for education, explaining, "Part of me always wanted to be a teacher, so I'm like, I'm gonna try it. I fell in love with it." (PL2) Another teacher explained that it was the family aspect of teaching that drew her in, "I knew that I wanted to be a mom one day and this was the best career I could find that balances both work and family. Turns out I love it! I couldn't imagine doing anything else!" (PS6)

Attraction and the Embeddedness Factor of Community Fit

In the TEF, the concept of "fit" refers to the alignment between a teacher's values, skills, and career goals with the demands and culture of their school environment (Larkin et al., 2021). This study sought to explore the connections between this concept of fit and teacher attraction to

taking a position in a remote rural school. The TEF suggests that teachers who experience a strong sense of alignment between their values, skills, and career goals with the local community environment are more likely to feel satisfied and committed to their work. Thus, understanding how teachers perceive this alignment is crucial for creating conditions that might help to attract teachers to rural remote areas. Without their insights, strategies may fail to address the specific challenges and opportunities that influence whether teachers feel they belong in a rural remote school and community setting.

For the participants in this study, the decision to return home and teach in a rural remote school was largely influenced by family connections. A significant number of teachers interviewed (75%) indicated that having family nearby played a key role in their attraction to these positions. The presence of family provided a sense of stability and belonging, making the rural remote environment feel more welcoming and supportive. This strong familial connection was a major factor in their initial choice to accept teaching positions in remote areas, as it offered both emotional and practical support in a setting that might otherwise feel isolating. For example, one teacher shared, "Well, yeah, 'cause my whole family is here. It is a lot easier to start a job when you know that you still have people here that you know, and you're not going into a brand-new space that you don't know and that you might be uncomfortable with." (PS 6) Another educator reflected on the significance of being close to younger siblings, explaining, "I was excited knowing that I was coming home to my parents and my siblings," (PS4) recognizing the importance of being present for their milestones.

This theme connects strongly with the fit factor of the TEF, which refers to how well a teacher’s personal and professional values align with the school and community. Many of the

teachers interviewed emphasized their deep-rooted connection to the rural areas where they grew up. One teacher mentioned, "I've always wanted to end up back at a small school just because of the community," (PL7) reflecting a strong personal alignment with the values of a tight-knit community. Additionally, one teacher described the unique opportunity to build long-term relationships with students: "The coolest thing about teaching in a small town is you get to see them for their whole academic career if they stay here, not just send them off to the next grade and not see them again." (PL3) Additionally, teachers described the support they received from the local community, where residents and businesses rallied around youth programs, with one teacher noting, "Our community supports the school and the teachers." (PS1) This network plays a critical role in establishing links that help teachers feel connected and invested in their community.

However, this decision also came with mixed emotions, especially for those returning to communities with economic challenges and unique cultural dynamics. One teacher, torn between financial stability in the oil field and the opportunity to be home every night, sought advice from their father. "He pretty much said if you're gonna stay out there, then you need to work hard and get into a position where you're not putting yourself in danger as much as what you are, or you can come home and be home every night," (PS2) they recalled. The draw of family ultimately guided their decision to return to their hometown, where they could balance personal fulfillment with professional stability.

Many teachers emphasized how their personal values, professional strengths, and long-term career aspirations aligned with the needs and opportunities present in the community. One teacher emphasized, "I was excited knowing that I was coming back to something familiar and

home," (PS8) which reflects how personal and family values created a sense of attachment to the community. For some teachers, their sense of fit within a school—how well they feel they align with the culture—played a crucial role in their decision to accept a teaching position. One teacher expressed that their schools already felt like home before they even started teaching, which contributed to a smooth transition into their roles. She explained, “It’s a very positive environment, and they were all very welcoming—a lot of my past teachers work here.” (PS10) This sense of familiarity reinforced supported a strong sense of professional comfort and purpose.

Similarly, another teacher reflected, “My mom worked here, so I knew what I was getting into, I loved it when I was little”. (PS11) Another teacher shared, “I remember having a good feeling when I went here, and I just wanted to be a part of that.” (PL 9) When teachers feel drawn to a school because of its welcoming environment, existing relationships, and personal history, they are more likely to accept a teaching position at that school.

Attraction and the Embeddedness of Links

In the TEF, the concept of "links" refers to the “personal relationships and connections made with individuals and groups within the local community, which may include family, consumer, religious, and other social affiliations” (Larkin et al., 2021, p. 19). This study sought to explore how the concept of links was related to teacher attraction to a position in a remote rural school.

Evidence from the study revealed that personal relationships and connections withing the local community played a role in attracting teachers to rural remote schools. Participants reported

that the close-knit nature of these remote rural communities created a deep sense of belonging, where teachers personally knew students and their families.

Teachers who returned to their hometowns found that their bond with the community deepened over time. "I feel like... being from here, you have a bond with your community members," (PS2) one teacher noted, explaining that the excitement from local residents about their return made the transition even more rewarding. Community support extended beyond the classroom, with educators recalling their own experiences growing up. "I remember when I was in sports in high school, the community would outpour [support] for the student athletes in meals and little goodie bags," (PS3) one teacher shared, emphasizing how this tradition of generosity shaped their appreciation for their town. The deep-rooted ties between teachers and their communities provided a foundation of support that made rural remote teaching an attractive and fulfilling career choice.

For those who returned to teach in their hometown in a rural remote school, the decision was often rooted in a sense of belonging. The appeal of strong, close-knit communities, where teachers personally know students and their families, was appealing. One educator shared, "I've always wanted to end up back at a small school just because of the community. It's just kind of cool, the community." (PL8) For some, student teaching experiences shaped their preferences. One teacher reflected on their early placements in larger schools, stating, "Even then, when I was in {the city}, I did my junior field, all of those class's practicums in the bigger schools. I knew I didn't want to—even if we stayed there, I didn't want to teach in those schools. It was too big; the town was too big. I really wanted to teach at a small school and come home." (PL6)

For others, the decision was not necessarily planned, but it ultimately felt like the right connection for them. One teacher admitted, "I did not feel drawn at all to rural contexts... I thought I'd be a big city teacher and never, ever considered rural schools." (PL4) However, their perspective shifted after visiting a friend's rural hometown: "It was an amazing experience. I had a ton of fun... I didn't realize there was so much to do in Eastern Montana, and we had a really nice time." (PL4) Their time led to a student teaching experience that solidified their appreciation for rural education, particularly the benefits of smaller class sizes and strong student relationships. "I really enjoyed it, and I found myself loving smaller class sizes, smaller towns, closer relationships with kids and people, and less politics," (PL4) they explained.

Attraction and the Embeddedness Factor of Assets

In the TEF, the concept of "assets" as described by Larkin et al. (2021) refers to the benefits and resources that teachers perceive as valuable in both their professional and personal lives. Understanding the types of things teachers view as strengths and assets is a key piece of information for rural schools and policymakers who seek to attract teachers to rural and remote schools and communities. If these assets are not prioritized or aligned with teachers' needs and values, efforts to improve teacher attraction to rural remote areas may fall short.

The school culture itself was a key asset which attracted teachers to work in rural remote schools. Many described the warmth and inclusivity they experienced when they were students and how this influenced their desire to return as educators. One teacher shared, "Even when I was a kid, any school that you walk into here, you automatically feel welcomed. You feel like you're supposed to be there," (PS5) one teacher expressed. "I just knew it would be the same way when I was the teacher." (PS5)

Teachers highlighted the sense of strong educational programs and a welcoming school culture as important assets which influenced their decision to take a teaching position in a remote rural school. For example, one teacher shared, "I automatically felt welcomed, even at a basketball game before school started," (PS3) which indicates a strong asset in the supportive school environment. Teachers also noted the availability of opportunities, such as maintaining academic programs, which they felt could be vital in preserving the legacy of rural education. The community's support for youth through extracurricular programs and the school's positive atmosphere were cited as key assets that made the decision to teach in rural schools more appealing.

Taken together, these experiences of alignment (fit), relationships (links) and strengths (assets) reinforce the idea that rural remote schools provide more than just a job—they offer a deep sense of belonging, stability, and purpose that continues to draw teachers back home. The teachers interviewed in this study all chose to teach in rural remote schools, arriving at the profession through different paths, yet a common thread among them is a deep connection to community and a desire to make a meaningful impact.

Teachers' Decision to Stay Teaching in Rural Remote Schools

This section presents the findings from the analysis regarding the factors influencing rural remote teachers in Southeastern Montana to remain in their positions. Data analysis revealed several embeddedness factors that influenced teachers to stay in their remote rural school positions and communities. These findings are framed by the research question: Which embeddedness factors influenced your decision to continue in the position?

Teacher Retention and the Embeddedness Factor of Fit

The TEF highlights the significance of "fit" with the local community and school environment, asserting that when teachers feel aligned with both, they are more likely to remain in their positions. In rural remote schools, teachers often experience a strong sense of belonging, as they feel integrated into the fabric of the community, fostering a deep commitment to their roles (Tran et al. 2020). As Larkin et al. (2021) explain, "fit" encompasses the degree to which a teacher's personal aspirations, career goals, values, culture, and worldview align with the local community and educational context. This alignment is crucial in the rural setting, where teachers' connection to both the school and the community can influence their decision to stay in their positions. When teachers perceive a strong fit, their goals and values align with the environment, increasing their satisfaction and commitment to the profession.

School Fit Teachers in the SE-MASS region rural remote schools provided many examples of how they felt aligned with their work and the school environment, both professionally and personally. On the personal level, one teacher explained, "Some of my teachers were my friends' parents. Now I am teaching some of my friends' children." (PS10) This sense of belonging was reinforced through professional relationships, as teachers valued the collaborative and supportive nature of rural school environments. One teacher shared, "I have friends here. I definitely feel a sense of belonging, and I really enjoy my grade-level PLC that I work with," (PS1) highlighting the importance of strong social connections in making them feel valued. The smaller class sizes and less formal structures of rural schools also appealed to many teachers. One participant reflected on their student teaching experience in a small school, saying,

"I really enjoyed it, and I found myself loving smaller class sizes, closer relationships with kids, and less formality." (PS9)

Community Fit The alignment with the community played a crucial role in many teachers' decisions to accept a position in a rural, remote school. Reflecting on the experience, they recalled,

> "I had gone for the interview one day. The day after that, my mom had received the message of somebody from town saying that they heard I was interviewing and really hoped that I got the job and offered me a place to live." (PS2)

This immediate display of support left a lasting impression, making them feel welcomed before they had even officially joined the school. "I was like, what a community to already have somewhere to live and stay, and how welcoming is that?" (PS8) they shared, emphasizing how this generosity influenced their decision. Beyond housing, the teacher also felt an immediate connection with the staff, stating, "Great staff that I met on day one that I knew I had clicked with was also another key factor." (PS3) While the transition to a small, unfamiliar town initially felt daunting, their passion for teaching ultimately outweighed their concerns. "At first, it was kind of scary when I have not really spent much time in {this town} at all before moving here… but it was more of my passion for wanting to do it and wanting to help out that really drove me to move here." (PS2) Additionally, proximity to home provided reassurance. "That was a big factor as well, that I wasn't moving somewhere insanely far away… but I was really, really close to home. It wasn't so scary." (PS2) The combination of community support, workplace connections, and familiarity with the surrounding area helped ease the transition, making the rural school a natural fit.

Teacher Retention and the Embeddedness Factor of Links

The TEF emphasizes the role that "links" play both within the school and the broader community. As Larkin et al. (2021) suggest, these links involve relationships with colleagues, students, family, religious groups, and other social affiliations within the community. Such connections foster a supportive, cohesive environment that not only strengthens teachers' sense of embeddedness in the school but also in the broader community, encouraging retention and long-term commitment to their roles. Teachers who build these connections often develop a sense of belonging and support, which enhances their commitment to their positions.

School Links Teachers in the SE-MASS rural remote schools shared that they often benefit from various relationships and connections in the school. The wealth of experience among veteran teachers and their willingness to share creates valuable opportunities for beginning teachers. These environments naturally foster mentorship, where professional development is often viewed as learning directly from experienced colleagues through collaboration and day-to-day practice. One teacher reflected,

> "Oh, yes. I think, all said, between 3rd and 4th grade alone, there's 130 collective years of maybe all 3 of the 3rd-grade teachers. If you add up just 3rd grade, there's 75 years of teaching experience. One of my co-teachers—she's on year 34 or so." (PS7)

This highlights the wealth of experience available in this rural remote school. However, while this type of mentorship and peer learning is valuable, it does not fully encompass what professional growth in teacher development means. True professional growth involves a broader range of experiences, including ongoing education, engagement with current research and best practices, and opportunities for reflection and adaptation within the classroom (Darling-

Hammond et al. 2017). The professional and personal growth described by another teacher was closely tied to the strong relationships formed with colleagues; these relationships created a supportive environment that helped this new teacher to feel valued and guided in their role.

As one teacher shared, "When I was considering which building, I wanted to work for when I was interviewed and they gave me a preference, I told them exactly where I wanted to teach and exactly what I wanted—what grade level." (PS6) This sense of alignment with the school played a significant role in the teacher's decision to remain in their position.

These deep-rooted community ties help build a strong sense of belonging. The connection between students and their teachers in rural settings is evident, and many teachers feel their work aligns with their personal values. A teacher shared that having the opportunity to work with students of families they have known since childhood makes teaching feel more like a family than a job, "All of the kids grow up here from preschool to eighth grade. A lot of them also have siblings and stuff. Just having that older kid and younger kid connection throughout the whole school is very nice to see. It just makes it feel more like a family than an actual job." (PS3)

Another clear theme that emerged from the data was the importance of strong administrative support in enhancing confidence and effectiveness in the classroom. For participants, support meant more than just logistical assistance; it was about feeling understood and valued as both a teacher and an individual. One teacher highlighted the significance of this kind of support, saying about the administration, "She understands that we are more than just a teacher, but also a human being. She has probably always had our best interest at heart." (PS1) This reflects how support, in its broadest sense, includes emotional encouragement, empathy,

and a genuine interest in the well-being of teachers, all of which contribute to their sense of belonging and retention in the profession. In one particular school the strong administrative support played a role in fostering a stable, nurturing educational environment where students develop lasting connections with both their peers and educators from preschool through eighth grade. This administrator encouraged and expected the older students to interact and build relationships with the younger students. One teacher emphasized the opportunity for professional growth provided by the administration, noting, “Knowing that and knowing that I can keep growing as a teacher, get better at lesson planning... get better at classroom management, more organized.” (PS11) This sense of development is supported by administrators who create an environment where teachers have room to learn from their experiences. This came in the form of book clubs, opportunities to go to conferences, professional learning communities, bringing professional speakers into the school district and inviting all teachers from schools in the surrounding areas to participate. Administrators in these settings offer encouragement and provide opportunities for teachers to improve their skills in a supportive, low-pressure atmosphere.

The smaller class, usually associated with rural remote schools, combined with less frequent oversight, can create space for teachers to explore different instructional approaches and gradually develop their practice at their own pace. As the teacher reflected, “Because it's a smaller school and we don't have as many administrators breathing down our back, I feel like I wouldn't have succeeded as much as I have already at a larger school.” (PS11) The autonomy that comes with teaching in a rural setting is a significant reason why this teacher chooses to stay. They explained, “I don't feel like I’m having to go to different staff meetings every other

day... Well, definitely here your admin is part of the faculty as well." One teacher joked and shared, *"*I'm not scared of the principal." (PS7)

In addition to the support from administrators, the culture of collaboration and understanding among staff members encourages teachers to remain in the profession. As one teacher explained, "I feel like I can go to anybody and ask them questions of why we do this. You know, like what's the purpose of this? They will just give me an answer without making me feel dumb for not knowing." (PS5) This supportive rural remote atmosphere, where colleagues work together and help each other grow, made it easier for this teacher to stay in their position and thrive.

Other factors which encourage teachers to choose to stay in their positions are the professional support and growth opportunities that are available to them. One teacher explained, "We're just really pushing new ideas that hasn't been pushed before, so that's pretty exciting. Our admin has a big part of it too.*"* (PS4) In this case, the presence of new leadership and an emphasis on improving test scores and teaching methods have created an environment ripe for growth. Other teachers talked about how the formation of various committees, such as for reading and math, indicated a concerted effort to focus on areas for improvement and professional development. One teacher noted, *"*We're looking at conferences to go to, to, how are we gonna better our skills and our education to make our classroom environment more of a better learning experience for the students." (PS8) This commitment from the school made this teacher feel supported in their desire to improve and expand their skills.

The sense of community and support from administration is a crucial reason why this teacher chose to remain in their rural remote school. The same teacher stated, *"*I have an

amazing admin in my building that pushes for greatness, —she's willing to have anyone go to her at any time. You always feel supported." (PS6) The teacher added, "I know if I need help with anything, that somebody will come and find a way to help me. I think that's my biggest reason of staying." (PS6) This sense of being supported by the school not only provided this teacher with a safety net but also fosters a culture of mutual respect and collaboration that encourages them to stay.

One teacher highlighted the positive impact that strong administration can have on new teachers. They shared, "She came in, and she was wonderful. She spent a lot of time just in my classroom observing... because, of course, I'm technically, at that point, a first-year teacher." (PS4) This kind of hands-on support and mentorship was invaluable, especially for a new teacher still learning the ropes. The teacher recalled how the principal provided guidance on improving classroom management and teaching methods, saying, "She gave me a lot of how to better manage some stuff, how to better teach and go forward from that." (PS4)

Community Links The TEF highlights the importance of links with the community, emphasizing that strong personal relationships and connections with individuals and groups within the local community can significantly influence a teacher's decision to remain in their position. Larkin et al. (2021) note that these connections can include relationships with family, consumers, religious groups, and other social affiliations, which contribute to a teacher's sense of embeddedness and support within the community. The results from this study revealed three key aspects of connections to community: connections with parents, connections formed through extracurricular activities, and tangible supports provided by community members.

One teacher stated, *"*You're in a small school so you really know these students and their families well and your relationship with them has got to be strong." (PS4) This deep connection creates a strong sense of responsibility toward the students and their success. The emotional and familial nature of teaching in a small rural community leads teachers to feel more connected and supported.

Connections with parents in the community emerged as an important aspect of community level links supporting teacher retention. For example, one teacher in a rural remote community shared that the support from parents is a key reason they are staying in their role. They shared, *"*I constantly have at least one parent a week asking me if they can come in" (PS2) and highlighted how they regularly receive help with classroom activities, such as having a parent assist with stations on Wednesdays. Parent involvement extends to school events as well, with parents sending in treats for parties and even contributing to charitable drives, as the teacher recalled, *"*We did a hat and glove drive… That wouldn't be possible without the parents' support and help." (PS2) Another teacher added "'cause you're in a small school so you really know these students and their families well and your relationship with them has got to be strong. I mean, just the nature of being the only teacher for all of these students and you see them all the time." (PS11) Support from parents can play a role in enhancing the emotional rewards of teaching.

Moreover, opportunities for leadership roles and active involvement in extracurricular activities, with groups that are not affiliated with the school, allow teachers to engage more deeply with the school community. One teacher noted how much she enjoys being a 4-H Leader, another was a leader in their church youth group, while yet another shared, "Being a coach lets

me connect with students outside of the classroom, and I get to see them grow in different ways. It's incredibly fulfilling to be part of their journey beyond academics." (PS10)

For many of the teachers interviewed, the sense of belonging extends beyond the classroom, with strong personal relationships formed outside of work. Teachers often form friendships through their work and even through extracurricular activities. One teacher mentioned feeling a special connection to the town, noting, "I first experienced it during college {in Eastern Montana} and chose to return because it felt like home, so why would I want to leave?" (PS8) For one teacher, personal relationships, such as their romantic relationship and friendships, played a role in their decision to stay in the area. Also, community events and family involvement in the school contribute to a sense of belonging and interconnectedness.

However, some teachers expressed concerns about the potential downsides of community connection, such as public scrutiny and criticisms, particularly on social media. Small-town culture offers a close-knit, supportive network but also brings the challenge of everyone knowing each other’s business. The evidence from this study suggests that despite these challenges, strong community support can foster a sense of belonging and connection, helping teachers feel valued and integrated into the town. When teachers are welcomed with open arms, offered housing, or included in local events, it strengthens their ties to the community and increases their commitment to staying. This support system not only helps with professional adjustment but also creates personal connections.

Teacher Retention and the Embeddedness Factor of Assets

The TEF underscores the role of both school and community assets in fostering embeddedness, noting that both tangible and intangible benefits contribute to an individual's

sense of connection to their work and the community. As Larkin et al. (2021) describe, these assets encompass a range of factors that enhance teachers' connection to their work and their local community, reinforcing their overall sense of embeddedness and commitment.

School Assets In the school context, these assets include material rewards like salary and resources, as well as psychological benefits such as support for professional growth and established workplace norms. One of the most appealing aspects of rural remote schools for some of the teachers that were interviewed is the four-day school week, which offers greater flexibility and a better work-life balance. While adjusting to this schedule may take time, many teachers interviewed found that it leads to higher morale and a more positive school climate. Beyond the benefits of time management, the structure of rural schools often allows for greater autonomy in the classroom. Reflecting on this flexibility, one teacher shared, "I could spend the first 30 minutes of my day teaching social-emotional skills. I know that in a big school, that probably wouldn't be the case—that I would be able to have that freedom to teach that." (PS5) This ability to tailor instruction to students' needs further enhances the appeal of rural teaching, making the four-day schedule more than just a perk, it becomes a key factor in teacher satisfaction.

However, one challenge teachers face is not having common prep time. As one teacher shared, ".... not having a common prep time ever. We do not have a single five-minute prep time that I share with my grade level." (PS7) This suggests that the issue persists despite different schools or grade levels and may be further complicated by the shift from a five-day to a four-day school week. However, the insights and mentorship provided by experienced educators can help ease this transition, offering new teachers the support they need to navigate the challenges of

their profession with confidence. Sharing resources and offering support in the form of mentorship can significantly ease the transition for new teachers. One teacher reflected on the collaborative nature of the school environment, saying, "As far as behaviors go, we all have extended an arm in saying, 'If you're having a behavior that you can't handle, send 'em to my room for 20 minutes while you take that break.'" (PS8)

A common limitation of rural remote schools is the scarcity of resources. Challenges such as large class sizes, often resulting from teacher shortages, create additional obstacles for educators. While the close-knit "family feel" of the school enhances job satisfaction, the absence of multiple grade-level teachers for collaboration can restrict opportunities for professional development. One teacher stated, “The one tough thing about being here and not at a bigger school is it is only one kindergarten class. I don't have another kindergarten teacher to bounce ideas off of, but other grade level teachers were willing to fill in for that missing spot that I had.” (PS2) Another teacher shared,

> “We have definitely less support staff than larger schools have. From someone that was a para, we don't have paraprofessionals. As much of a challenge as that is, a lot of times I'll just send a student. Like if I need copies, I'll just quickly—I have certain jobs and so I'll grab a student helper. I'll have them run down to the office and get copies made. I mean, it's a challenge but there's easy ways to overcome it. There's ways around it. We don't even have a P.E. teacher." (PS3)

Teachers embrace flexibility and it allows them to make the most of their resources. These efforts result in creating a practical and collaborative environment where students can take on responsibilities, enhancing their involvement in the school community while still maintaining

the flow of daily tasks. Nevertheless, the resources and guidance offered by former educators can mitigate this challenge, allowing new teachers to feel supported as they adapt to the demands of their roles.

One of the standout assets of working at one particular rural remote school was the presence of an on-site daycare, which provided both convenience and peace of mind for staff members with young children. One teacher expressed appreciation for this resource, stating, "The daycare, definitely, and I really enjoy all the people that work here." (PS4) Having a daycare within the elementary school not only made childcare more accessible but also allowed teachers to stay close to their children during the workday. This setup helped ease the stress of balancing professional and family responsibilities, creating a more supportive work environment.

Additionally, the welcoming and positive atmosphere of the school further reinforced the teachers' satisfaction with their job. As one teacher shared, "It's a very positive environment, and they were all very welcoming," (PS5) emphasizing how both the daycare and the school culture contributed to their overall sense of belonging and job fulfillment. The ability to have reliable childcare on-site fosters a stronger sense of community among staff members, making it easier for teachers to focus on their work while knowing their children are well cared for nearby.

Community Assets Community assets—such as housing, a strong sense of place, and established patterns of living—also provide both material and psychological value, contributing to a teacher's sense of belonging and stability. One teacher shared that they continue to feel financially stable, especially since family considerations played a significant role in their decision to teach in a rural remote school. One teacher explained, "I ended up getting an apartment with my sister. She was the one who pushed me into getting the job here 'cause I was

gonna go to college out of state. She needed to stay here to take classes, so we were able to get an apartment together. That saved us money." (PS8) Another teacher reflected on their experience in a larger city, saying, "not having a community in Missoula, I really only had my sister. It was so big there and there were so many different districts, that I felt like it wasn't as—like there wasn't a set community." (PS10) This contrast highlights how rural schools often provide a stronger, more interconnected sense of community, making teachers feel valued and supported in ways that larger districts may not.

These experiences reinforce the idea that rural remote schools provide more than just a workplace—they are places which can cultivate strong relationships, support systems, and a sustainable work-life balance that encourage teachers to stay. The teachers interviewed in this study all chose to remain in rural remote schools, each with unique motivations, yet a common thread among them is a deep sense of connection to their students, colleagues, and the broader community.

Teachers' Decision to Leave Their Positions in Rural Remote Schools

Data analysis revealed several embeddedness factors that influenced teachers' decision to leave their remote rural school teaching positions. This section presents the findings from the analysis regarding the factors contributing to teacher attrition in rural remote schools in Southeastern Montana, guided by the research question: What factors in the school environment influence teachers' decisions to leave?

Attrition and the Embeddedness Factor of Fit

A teacher's sense of fit (or lack thereof) within both the school and the community plays a crucial role in their decision to leave a rural position. According to the TEF, misalignment between a teacher's values, skills, career goals, and the demands or culture of a rural school can lead to dissatisfaction and contribute to attrition. When educators feel disconnected from their school environment or struggle to see long-term growth opportunities, they may seek positions elsewhere. Similarly, the TEF highlights that a teacher's sense of fit within the community also impacts their decision to leave. If teachers struggle to connect with the social, cultural, or professional aspects of the local community, they may feel isolated or unsupported, increasing the likelihood of departure. As Larkin et al. (2021) describe, fit refers to the degree of alignment between a teacher's aspirations, values, and cultural identity with both the educational setting and the broader community. When this alignment is lacking, teachers may find it difficult to establish roots, ultimately reducing their long-term commitment to both the school and the community. Understanding the factors that contribute to teachers leaving is essential for addressing the challenges rural schools face in retaining qualified educators.

School Fit A teacher's sense of fit within a school can play a crucial role in their decision to stay or leave their teaching position. For example, one teacher interviewed reflected on the importance of how well a teacher fits within the school environment and how it can influence teacher retention. After sitting in on a school board meeting, they said, "It was very interesting to hear how they viewed the teachers, and what they valued. They seemed to focus more on recruiting new teachers, which was a priority, but retention didn't appear to be valued as much." (PL1) This comment points out how focusing mainly on recruitment, without also prioritizing

retention, can create a gap between what the school values and what keeps teachers feeling valued. From the perspective of TEF, this disconnect reduces how well teachers feel they fit into the school's culture, as well as reducing the sense of connections they build with colleagues and students, and the support and resources they receive in return. When these aspects are lacking, teachers can start to feel undervalued, which can ultimately lead them to decide to leave.

Community Fit A teacher reflected on how their understanding of the community evolved during their time in the school. "I've learned so much more about the community," (PL7) they shared, noting that coming from a small town, they initially did not understand the significance of certain local last names. "I started learning more about like, okay, so this is why. These people have been in the community for this long, and they've done this, this, this." (PL7) This understanding deepened their awareness of the broader dynamics of the community, saying, "You're kind of enveloped in the whole entire community if you're in the schools." (PL7) While this closeness can foster a sense of belonging, it can also reveal how tightly held traditions and long-standing ways of doing things can lead to a lack of diversity in thought. In many cases, established norms are protected, and new ideas—especially those introduced by outsiders or newer teachers—may be met with skepticism or hesitation. This resistance to change within rural remote communities can make it difficult for teachers to implement fresh approaches, contributing over time to frustration and, ultimately, attrition. In one teacher's opinion, without an influx of new perspectives, ideas can become stagnant, making it difficult for teachers who want to change things to feel fulfilled. She felt that when teachers think that the community is unwilling to see different viewpoints, they may not feel aligned with the community.

One teacher also expressed feelings that their personal values no longer aligned with those of the community. Coming from a strict family background, they were accustomed to a more traditional approach to education, where teachers were backed by parents and discipline was enforced. However, in this community, they struggled with situations where parents opposed teacher decisions, such as when a student was kept in during recess to finish an assignment. The teacher shared, "That was very different, and difficult for me to work hard with a kid at recess and then have parents call and be mad at me because I kept them in for five minutes." (PL2) The lack of support from leadership only made the teacher's situation feel worse. This disconnect between the community's values and the school's culture, along with personal financial concerns, led to their decision to leave.

In terms of what could have influenced their decision to stay longer, many teachers emphasized the importance of support, particularly from the district level. "It goes back to support," (PL4) one teacher said, explaining how they observed the lack of support during their last year. "I did have the opportunity to sit in on bargaining my last year, and just seeing how the board perceives us was enlightening." (PL4) This highlights a crucial factor in teachers' decision to leave—the evidence suggests that the feeling of being unsupported at multiple levels, including the broader community and district leadership, plays a critical role in teacher attrition.

Attrition and Embeddedness Factor of Links

The TEF emphasizes that a teacher's links within both the school and the community—personal relationships and connections with colleagues, students, and individuals in the local area—play a critical role in their decision to stay or leave. When these connections are weak or strained, teachers may feel isolated and unsupported, increasing the likelihood of departure.

Larkin et al. (2021) highlight that these links shape a teacher's overall experience, influencing their sense of belonging and professional fulfillment. In the community, the absence of strong personal relationships with individuals or groups can lead to a diminished sense of attachment to the area. Without these supportive ties, teachers may find it difficult to feel rooted in their position, ultimately contributing to attrition.

School Links One teacher chose to leave their teaching position primarily due to challenges with leadership. They described having an extremely difficult relationship with the superintendent, stating, "We had a....bad superintendent... I was afraid he was still going to be there. So, I didn't go back". (PL5) Another teacher emphasized the crucial role that administration plays in the success of a school, stating, "Good administration can make or break a school. It really can." (PL6) Reflecting on their experience, they recalled their time at the junior high school, where strong leadership left a lasting impression. However, with the departure of key administrators, the teacher expressed concern, saying, "As soon as they leave, what if this just becomes a bigger high school, with all of their problems?" (PL8)

Another teacher who left discussed how a lack of alignment between their relationships with the administration and their personal connections with colleagues contributed to their dissatisfaction, "Many of us {teachers} all had a lot of the same values, and I think that's how we got so frustrated. We felt like we weren't being heard by the administration." (PL8) They emphasized that this frustration was not isolated to the staff, noting, "It did... domino to the students, too." (PL8) They also observed that the school's leadership did not align with the teachers' needs, explaining, "I think her values aligned really well with our superintendent's, so I think we get stuck there a lot too." (PL9) Reflecting on the challenges of keeping teachers, they

added, "It's so hard to get people here, we aren't left with a whole lot of options." (PL9) Without a strong pool of qualified applicants, this school was forced to hire from a limited selection; the teacher shared that they felt they had to “take what we can get rather than choosing the best fit for the position.” (PL9) This placed additional strain on existing staff who must support underprepared or less experienced hires. The teacher shared that this additional workload was “not fair to expect us to do our job and train others at the same time.” (PL9)

Another teacher recounted a specific incident involving a student using racial slurs and inappropriate language during track practice, which went unaddressed by the administration. They described the situation, saying, "I got very frustrated because this student... would repeatedly have racial slurs, use racial slurs. Call girls the B word. He was very, very difficult." (PL4) When they brought the issue up, the response was inadequate: "I called a meeting with the head coach, the principal, and my other coaches and I was like, this behavior should not be allowed. I'm sorry, this is ridiculous. No consequences whatsoever." (PL4) The lack of follow-through from the administration was clear to the students as well, as the interviewee stated, "The kids figured that out immediately... they would just straight up say it, like she's not gonna do anything. Do it, report me."(PL4) In reflecting on what could have changed their mind about leaving, the interviewee reiterated the importance of support, saying, "I just feel like I just keep giving the same answer, but support." (PL4) This lack of support from the administration was the key factor in their decision to leave.

Community Links These links in the form of community relationships not only provide emotional support but can also create a strong sense of attachment to the community, influencing teachers’ decisions to remain in rural remote schools. When asked what specific factors could

have influenced them to stay longer as a fourth-grade teacher, one interviewee responded, "More supportive parents. That was my biggest gripe last year, where you'd call a parent, and most of the time, it was my fault that their students were having issues." (PL1)

Another missing link which compounded the issue was the absence of proper mentorship. For example, one teacher who left shared, "I did not have a mentor here that I was supposed to have. I had a lady {in a different town} that I could call when it was convenient." (PL2) While their assigned mentor made efforts to observe and provide guidance, remote support was no substitute for the hands-on mentorship needed in a challenging transition.

"The community members also share the same frustrations that some of the teachers do," (PL7) a teacher explained, highlighting how the shared challenges in a small town can foster a stronger sense of community. However, leaving the position brought some pain to this connection, as they felt that departing may have hurt the bond they had built. This reflects the relationship between personal connections to a small community and the challenges faced within a school setting. When discussing their connection with students, a teacher who had left the profession shared that their expectations were different from reality "I thought I would have—I mean, I still have connections with students, but I don’t—it’s not as deep, maybe, as I thought it would be." (PL5) Another teacher who left explained how they envisioned watching students grow up but instead found that those relationships did not develop as they expected, stating, "I am, from a distance, but not—as deep as a relationship as maybe I would’ve thought I would have." (PL7)

Attrition and Embeddedness Factor of Assets

According to the TEF, both school and community assets—tangible and intangible—play a significant role in a teacher's decision to stay or leave their position. School assets include factors such as salary, workplace resources, established work structures, and support for professional growth (Larkin et al., 2021). When teachers feel that the resources and support available to them are insufficient or mismatched with their needs, it can lead to dissatisfaction and an increased likelihood of departure. Similarly, community assets, such as housing, a strong sense of place, and established patterns of living, also impact a teacher's sense of connection to their role and the community. When teachers feel that the community offers insufficient support or lacks the resources to meet their personal and professional needs, they may experience disconnection, diminishing their sense of embeddedness. This disconnection, both within the school and the community, can contribute to attrition as teachers may not feel valued or supported, ultimately leading to their departure.

School Assets A teacher’s sense of belonging within a school is also shaped by opportunities for professional growth—or the lack thereof. When asked if his position allowed room for advancement, one teacher was blunt about the limitations faced: "I knew that I would just get stuck in a classroom, basically, unless I wanted to take over as superintendent or something. I knew that was a big no-no for me." (PL8) Without clear pathways for career progression, they felt trapped in a system that offered little incentive for continued development. "You can further yourself and get better and better at what you do, but there wasn’t—really anywhere to go," (PL4) they explained, noting that earning a higher degree had little impact on his career trajectory. The lack of differentiation in the pay scale reinforced this stagnation,

making advancement feel meaningless. As one teacher shared, "It's somewhat just, 'Here you go, you fit in your hole and you stay there. For your little pay.” (PL6)

Another teacher also spoke about the issue of financial strain, as the teacher was unable to support their family solely on their income. They explained, "The only thing I could find other than that around here was basically bartending, which took me away at night, and I did not want to be leaving my kids all the time." (PL4) Yet another teacher directly stated, when asked what would have needed to change for him to stay, "The blunt fact is it's money, it's pay. I wouldn't have left if it was close to being equal.” (PL5) While financial considerations were the primary factor, other elements of the school environment also influenced his decision.

Although the four-day work week was viewed as an asset for many teachers’ work life balance, for another teacher it made him feel disconnected. The teacher discussed how burnout and structural changes in the school have affected their sense of connection to the community and their decision to leave. They shared, "I’ve been doing this for—teaching for three years, in education for six, so sometimes I’m—who am I to complain?" (PL3) The teacher explained that burnout has caused them to isolate themselves, and the structural changes, such as the school schedule and the shift to a four-day workweek, made it harder to connect with colleagues. They explained the challenges of the new schedule, particularly how it has caused the school day to feel rushed and stripped away opportunities for creative teaching moments, such as taking students outside for bird watching. They said, "It’s well, a time where maybe I would have wanted to go outside and take the kids on a walk to do bird watching for social studies or science, it’s, well—we probably should make sure we just get through some stuff before."(PL3) These changes have led to the teacher feeling disconnected from both the community and their

own professional enjoyment. Reflecting on this, they said, "I just realized that where I'm at isn't where I think I wanted to continue to be." (PL3) They added that while the four-day week is attractive to many, it "took a lot of the fun out for me," (PL3) explaining, "I have fun and that's a huge part of my job." (PL3) They felt that the focus shifted from creating enjoyable experiences for the students to just "teaching," and this shift made them reconsider their path. He concluded by sharing, "After the dust all settled and I really had a chance to kind of take stock in how I'm feeling and what I'm surrounded in by my environment, I just realized I think it's time for me to focus on me and my family and just make the decision of what's best for us." (PL3)

"The class sizes also is something that I have personally struggled with," (PL2) another teacher explained, noting the inconsistency in student numbers across the district. "There's places in the district that have 14 kids in some classes. I've got 22." (PL2) Despite appreciating benefits like the four-day workweek, which they admitted was "hard to leave," (PL2) the overall fit of the school no longer aligned with his needs. Returning to a schedule that required Fridays and summer work made the transition even less ideal, but ultimately, he concluded, "At the end of the day, unfortunately, it just comes down to the dollar amount. It's just not enough for me and my family."(PL2) His experience highlights how the embeddedness factor of assets can change with differences in compensation, workload, and work-life balance can alter a teacher's perception, ultimately leading them to seek opportunities elsewhere.

One teacher talked about the lack of support teachers received from her school, and they pointed to the lack of resources, particularly for running science labs. "I didn't have a very big budget. I had the same $250 per year," (PL7) they shared, noting that it was insufficient for providing the necessary materials for 80 students. "You can't run a lab on the $250 for the year

for 80 kids," (PL7) they added, revealing the financial strain on teachers to provide quality education. This situation, they explained, led them to spend their own money, which they felt should not be the norm.

A lack of administrative support can also significantly impact a teacher's experience and sense of stability within a school. Reflecting on their decision to leave, one teacher described the overwhelming challenges they faced, ultimately feeling relief when they walked away.

> "The day that I handed in my key and walked out of there, it actually was just a relief. I knew the person I was going to work for, and while it's bookkeeping and office work, it's not my calling. It's not what I want to do, I want to teach, but it is stress-free in comparison to what I went through in the last semester." (PL1)

For one teacher, a particularly difficult turning point came just ten days before the school year began when the superintendent abruptly reassigned them. She shared, "The superintendent moved me to first grade from third grade, and I had worked all summer on prepping everything to have these awesome videos and projects and everything for third grade." (PL5) Despite their efforts to advocate for a more suitable placement, they were forced into a grade level outside their area of expertise. She stated, "He wanted to put me in kindergarten, but I talked the first-grade teacher at that time into taking kindergarten, because she liked little kids—and I knew that that wasn't my calling." (PL5) The sudden change left them scrambling to rebuild lesson plans from scratch while also managing the demands of a graduate program. "It was my third year, and I thought, 'Okay, I've got at least the curriculum figured out. I've got all this down.' Then I had to start over from scratch at the last minute." (PL5)

Community Assets For the teachers interviewed, their connection to the community was not a major factor in their decision to leave teaching, as they all still live in the same rural remote area. While their relationships and sense of belonging to the community were strong, these factors were not the driving forces behind their departure. Instead, the challenges they faced within the school—such as issues with leadership, financial constraints, and a lack of resources—aligned more closely with the "fit" and "assets" components of the TEF. While the community provided stability, it was the lack of support and professional growth opportunities within the school environment that ultimately led them to leave. Their experience highlights how strong community links, while important, cannot fully compensate for the absence of a supportive and sustainable school environment.

The findings from the analysis highlight key factors that influenced teacher attrition, revealing critical areas that need to be addressed to improve teacher attraction and retention in rural remote Southeastern Montana schools. The analysis revealed three prominent themes: a lack of alignment with the school environment, challenges with leadership and administrative support, and financial strain. These issues contributed significantly to teacher dissatisfaction and influenced their decision to leave their positions.

Chapter Summary

This study explores the factors influencing teacher attraction, retention, and attrition in rural remote schools in Southeastern Montana through the lens of the Teacher Embeddedness Framework (TEF). By utilizing the principles of journey mapping and semi-structured interviews, the research examined how fit, links, and assets within both the school and the

broader community impact teachers' decisions to accept a teacher position, remain in or leave their positions.

CHAPTER FIVE

DISCUSSION

Introduction

This study was designed to investigate the ongoing challenge of rural remote teacher shortages, with an in-depth examination of the factors influencing teacher attraction, retention, and attrition. Specifically, it explored which embeddedness factors influenced rural remote teachers in Southeastern Montana to accept, remain in, or leave their teaching positions. Despite innovative efforts to address rural staffing needs (e.g., Barbosa Jr. & Coneway, 2023), a significant gap remains in understanding how the embeddedness factors of fit, links, and assets shape teacher experiences in both rural remote schools and communities. Deeper insight into these dynamics is needed to help to inform the development of thoughtful, targeted policies to strengthen rural remote education systems and enhance support for the teachers who serve in them.

Thus, to address this gap, this study gathered data from teachers who have been employed in the SE-MASS region of Southeastern Montana and employed the Teacher Embeddedness Framework (TEF) as a lens for analysis. This chapter presents a summary and interpretation of the results of the investigation and provides an evaluation of the approach used to collect and analyze the data. Finally, this chapter describes the study's contributions to literature, its implications for professional practice, and possible avenues for further study.

Summary and Interpretation of the Findings

This study offers important insights into the ways in which embeddedness factors influence teachers to accept, stay in, or leave positions in rural remote K-8 schools, particularly in Southeastern Montana. The study examined: (1) factors that shape teachers' attraction to rural remote schools and communities (2) experiences of rural remote teachers in Southeastern Montana who are currently in the profession and (3) experiences of those who have recently left. To investigate these areas, the study was guided by the following research questions:

For rural remote teachers in Southeastern Montana who are currently in the profession:

a. Which embeddedness factors influenced their decision to accept their teaching position?

b. Which embeddedness factors influence their decision to continue in the position?

For rural remote teachers in Southeastern Montana who have recently left the profession:

a. Which embeddedness factors influenced their decision to accept their teaching position?

b. Which embeddedness factors influenced their decision to leave their position?

Main Findings

The data analysis revealed key insights into two main challenges faced by rural remote schools: identifying the features which attract teachers to these schools and the dynamics which encourage teachers to continue to remain in their positions. Based on the findings of this study, the main factors that attract teachers to rural remote schools are: 1) family ties, 2) community support, and 3) a welcoming school culture. The main factors that encourage teachers to remain in their roles over time include: 1) social connections, 2) consistent professional and personal

support systems, and 3) the ability to maintain a healthy work-life balance. Finally, the main factors contributing to teacher attrition include: 1) misalignment between personal values and the school culture. 2) lack of administrative support, and 3) financial strain.

Findings on Attraction

The data analyses showed that a key factor attracting teachers to rural and remote areas is their connection to family and the local community through 1) family ties, 2) community support, and 3) welcoming school culture. Many participants in the study shared that their decision to accept a position as a teacher in a rural remote school was influenced by the desire to be closer to family members or to return to the communities where they were raised. Participants shared how these familial connections offered a sense of emotional security and belonging that cannot be easily replicated elsewhere, making a rural remote teaching position an appealing opportunity to both pursue a career and stay connected to family. Familiarity and personal connection to the area were also identified as important factors in attracting a teacher to accept a position in a remote rural school. Many participants in the study either grew up in the region, attended school there themselves, or had previous positive experiences in the community. This sense of familiarity allowed them to feel more confident and comfortable in their roles from the outset. In some cases, the desire to return "home" or give back to the community that shaped them was a major influence in choosing a rural remote teaching position. For many participating teachers, these communities represent more than just a workplace—they are deeply rooted in personal history and identity. Teaching in a familiar environment allows them to reconnect with local traditions, support future generations, and serve as role models for students who share similar backgrounds. Teachers who already understood the local culture, values, and educational

environment felt a natural fit that smoothed the path into their new roles. For those without this pre-existing knowledge, strong community support and intentional relationship-building can provide an accessible on-ramp, helping them integrate and thrive in their new setting.

Community support also emerged as a compelling draw for teachers considering rural remote schools. Many educators described these communities as places where they felt genuinely welcomed and valued—not only as professionals but as individuals. Participants spoke about how community members regularly reached out to help, participate in school events, or express appreciation for their work. This kind of support appeared to contribute to a teacher's sense of being needed and respected, and this was linked to their willingness to accept a teacher position. In addition to emotional encouragement, community involvement is often translated into practical support—such as help finding housing, navigating local systems, or building social connections—which eased the transition into rural remote life. These connections helped foster a sense of belonging early on, aiding in attracting teachers to rural remote schools.

Another key embeddedness factor for attraction is a welcoming school culture. Participants shared how they were attracted to a position where the environment communicated that collaboration, respect, and mutual support are the norm. A welcoming school culture, where new teachers are included and supported by both colleagues and leadership, helps ease the transition into a new position in a rural location. Participants described how a sense of camaraderie and shared purpose among staff members made the school feel like an extension of the community and which signaled to prospective teachers that they would be entering a positive, inclusive environment. This initial impression played a significant role in drawing educators

toward rural remote opportunities, especially for those seeking a sense of connection and professional belonging.

Findings on Retention

The findings from this study emphasize three key factors that contribute to teachers' continued success and satisfaction in their roles: 1) social connections, 2) consistent professional and personal support systems, and 3) the ability to maintain a healthy work-life balance. For teachers who remain in the profession, social connections were identified as a major factor in their decision to stay. Many described the relationships they formed with students, families, and community members as central to their sense of purpose and job satisfaction. Participants reported how these connections were present in the school but also extended well beyond the classroom, making teachers feel deeply embedded in the fabric of community life. The sense of being part of something bigger than themselves, and making a meaningful impact, was often cited as a reason for on-going commitment to rural teaching.

Professional and personal support systems were also identified as playing a critical role in teacher retention. Previous research has shown that in many rural remote schools, smaller staff sizes lead to close working relationships and strong peer networks where teachers often rely on one another for mentorship, collaboration, and emotional support (Tran et al. 2020). This mutual reliance fosters a tight-knit environment where educators feel they are not facing challenges alone. In this study, participants confirmed this finding and shared that in addition to professional support, personal networks—such as friendships with colleagues, neighbors, or community members—enhanced their sense of resilience and capacity to manage the demands of the profession.

The ability to maintain a healthy work-life balance was another key reason teachers chose to continue to teach in rural remote schools. Many reported that the slower pace of life and reduced commute times allowed for more time with family, hobbies, and personal pursuits. The smaller scale of rural schools also meant fewer bureaucratic hurdles and more autonomy in their teaching. Participants appreciated the flexibility and the opportunity to shape their own routines in a way that aligned with their values and well-being.

Findings on Attrition

In addition to the positive factors which help to attract and retain teachers in remote rural schools and communities, the study also identified three key factors which led some teachers to decide to leave the profession earlier than planned. The main factors contributing to teacher attrition include: 1) misalignment between personal values and the school culture. 2) lack of administrative support, and 3) financial strain.

A misalignment between personal values and the school culture played a role in some participants' decisions to leave. For instance, when school policies or leadership styles clashed with a teacher's educational philosophy or ethical standards, the resulting tension led to dissatisfaction and eventual departure. Findings also revealed that participants who entered the profession with a strong sense of mission and purpose found it difficult to stay in environments where they felt they could not make the kind of impact they envisioned.

Participants who left the profession shared that a lack of administrative support also contributed to teacher attrition. A variety of factors appeared to contribute to this sense of lack of support. For example, some participants described experiences with inconsistencies in leadership, while others referenced limited communication, and others described feeling

undervalued by their administrators. Furthermore, the absence of clear expectations, recognition, or professional development opportunities appeared to lead to feelings of burnout and a diminished sense of purpose. Participants highlighted that strong, supportive leadership was crucial in creating an environment where they felt both empowered and respected. Many shared that, had they experienced such leadership, they would have been more likely to remain in their positions.

Finally, financial strain emerged as a recurring theme, with many participants noting that salaries, while adequate for their immediate needs, limited their ability to plan for long-term financial goals. Even those who felt passionate about their roles found it difficult to justify staying in positions that could not support their financial needs. While teachers were aware of the financial limitations when they accepted the positions, the combination of lack of support and misalignment in values made the compensation feel insufficient. For most, the financial aspect was not a deal-breaker initially, but when coupled with these other challenges, it became a more significant concern.

These findings demonstrate that while embeddedness factors such as school and community ties and support can be powerful attractors to the teaching profession, they are not enough on their own to ensure long-term retention. Rural remote schools must also address systemic issues to create an environment where teachers not only start out but also choose to stay.

Suggestions

To effectively attract and retain teachers in rural remote schools, targeted changes must address the systemic challenges identified in this study. School administrators, school boards,

and teacher preparation programs all play a role in making these improvements. Collaboration among these groups is essential for overcoming barriers to both attraction and retention for rural remote teachers.

First, aligning the school culture with teachers' personal values is crucial in rural remote schools. Administrators should prioritize creating an environment where collaboration, respect, and mutual support are foundational. This can be achieved by ensuring that teachers have a voice in school decisions and fostering an inclusive atmosphere where their input is valued, keeping promises, and being transparent in decision making. Regular and meaningful feedback sessions on performance for new teachers are needed. Administration and teachers should work as a team when dealing with student misbehavior and when any parent issues arise. Meetings should be held to address any misalignment between teachers' values and the school's culture, between the teacher and the administration only. Additionally, school leaders should invest in mentorship programs where experienced teachers can help newcomers navigate the school culture, thus easing their transition into a rural school. Teacher preparation programs can support future educators by providing tools to assess and adapt to school cultures, specifically preparing them for the unique dynamics of rural schools. This can be achieved through field placements in rural and remote schools, mentorship with experienced rural educators, and collaboration with rural school districts.

Second, addressing the need for robust administrative support is essential in rural remote schools. Teachers in these areas often cited a lack of support from school leadership as a barrier to staying in their positions. Administrators in rural remote schools must prioritize providing ongoing professional development directed specifically at rural remote teachers' needs,

mentoring, and clear guidance on classroom management. Creating a supportive leadership structure where teachers feel empowered to share concerns and ideas will be important in building a positive environment. Regular check-ins between administrators and staff, along with open lines of communication, can ensure teachers feel supported in their roles. School boards should actively push for increased funding to provide administrators in rural and remote schools with the necessary resources to effectively support their teams. This includes the ability to hire additional support staff, which would help alleviate teachers' workloads. In some rural and remote schools, the school board also acts as the administration and hiring committee, so it is important for them to understand what factors attract teachers to these schools. Higher education teacher preparation programs can support this initiative by preparing teachers with leadership skills and an understanding of the vital role administrators play in teacher success in rural schools.

Financial support remains a crucial area for improvement in rural remote schools. While teachers are often aware of the financial limitations when they accept positions in rural schools, the combination of financial strain, misalignment with personal values, and lack of administrative support, often makes the compensation seem inadequate. To address this, school boards and administrators in rural remote schools should work together to secure funding that allows for competitive salaries and comprehensive benefits packages. This may include negotiating for housing allowances, transportation stipends, or other incentives to help alleviate the financial burden of living in rural areas. Additionally, offering professional development stipends or funds for further education can make a significant difference in teachers' ability to plan for their futures.

In addition to addressing financial concerns, fostering strong social connections and professional support systems within rural remote schools is critical for teacher retention. Teachers thrive when they feel supported by their community, and the evidence from this study highlights that a strong sense of community was a key factor in their decision to stay in rural schools. Administrators should encourage camaraderie by creating opportunities for team-building activities, social gatherings, and professional learning communities where teachers can share resources and ideas. Peer mentoring programs can be particularly effective in helping new teachers feel integrated into the school community. School boards can encourage these initiatives by advocating for the allocation of time during the school day for collaborative planning and ensuring that teachers have opportunities to connect with professional networks. Teacher preparation programs can emphasize the importance of building relationships both inside and outside of the classroom, equipping future teachers with strategies to build strong connections within rural communities.

Lastly, maintaining a healthy work-life balance is essential for teachers in rural remote schools. Administrators need to actively support this by offering flexible scheduling options whenever possible, such as adjusting workload expectations during particularly challenging times of the year or providing additional planning time to help manage the workload. Encouraging a culture where teachers are supported by balancing their professional responsibilities with personal time is critical for preventing burnout. School boards should ensure that workload expectations are reasonable and provide resources such as counseling services or wellness programs to support teachers' well-being. Teacher preparation programs can play a role

by incorporating wellness strategies into their curricula, helping future teachers manage stress and prioritize self-care throughout their careers.

By taking these steps, educational leaders can create the conditions for long-term teacher success in rural remote schools. Supporting rural remote teachers is not just about filling positions, it is about building environments where teachers feel valued, connected, and equipped to thrive. When teachers have the resources, respect, and support they need, they may be more likely to stay, creating stability that benefits both schools and the communities they serve.

Supplementary Results

In addition to answering the primary research questions, this study revealed two additional insights into the lived experiences of rural remote teachers in Southeastern Montana 1) informal mentorship and peer support, and 2) lifestyle preferences.

Many teachers emphasized the importance of informal mentorship and peer support as critical to their sense of belonging and commitment, even more so than formal professional development or administrative structures. Beginning teachers, in particular, relied heavily on veteran teachers for guidance in navigating the logistics of the school day, addressing student behavior issues, and managing the emotional toll that often accompanies the teaching profession. Beyond the practical aspects of teaching, teachers also spoke about the emotional support they received from colleagues, noting that these relationships became unexpected sources of strength during particularly difficult periods in their first years of teaching. These connections not only helped with daily challenges but also fostered a sense of community and camaraderie, which played a significant role in their overall job satisfaction and resilience.

The findings also revealed some interesting patterns in the demographic factors influencing teacher attraction. Non-work-related lifestyle preferences played a pronounced role in teachers' attraction to rural remote positions. Participants frequently expressed a desire to live in agricultural areas, valuing the slower pace of life and open spaces. Many described a personal connection to the rural lifestyle, expressing a longing "to live in the country" and emphasizing their cultural ties to farming and ranching. In addition, teachers often mentioned the appeal of a close-knit, community-oriented environment, where relationships with neighbors and local families were seen as meaningful and fulfilling. Several teachers specifically highlighted being drawn to areas where rural traditions, such as farming and cowboy culture, were not only prevalent but integral to daily life. This deeper connection to the land and community life, alongside the desire for a simpler way of living, played a significant role in their decision to work and remain in these rural remote areas.

These supplementary findings suggest that rural remote teacher attraction and retention strategies must address not only professional factors but also include attention to the broader emotional, social, and lifestyle contexts in which rural remote teachers live and work.

Significance of the Findings for Future Practice

This study revealed several critical insights regarding the embeddedness factors that influence rural remote K-8 teachers in Southeastern Montana to accept, remain in, or leave their positions. Given the severe nature of our current teacher shortage, particularly in remote rural locales, there is an urgent need for insights into how to prepare and support teachers in these locales. The intent of the study was to translate these insights into practical recommendations which could be used by school administrators, local community leaders and school board

members, and local and state-level policy makers to increase the effectiveness of both the preparation and ongoing professional support provided for teachers in remote rural contexts.

Implications

This research has important implications for education, especially when it comes to attracting and retaining teachers in rural remote areas. The findings emphasize just how important it is to build a supportive school culture that values not just professional growth, but personal well-being too. In these settings, strong relationships with students, families, and colleagues are not just nice to have—they are essential factors in a teacher's decision to stay. Educational leaders need to understand that teacher embeddedness is not just about job satisfaction; it is about feeling connected to the community and having a real sense of belonging. School leaders should prioritize building a positive school culture where teachers feel heard, respected, and included in decision-making processes. Mentorship opportunities—particularly for new or alternatively certified teachers—should be structured and sustained, helping to build strong professional links early in a teacher's career. Professional development should be meaningful, collaborative, and tailored to rural remote teaching realities, not simply compliance based. Additionally, leveraging community resources, like housing assistance or on-site childcare, can enhance teacher satisfaction and reduce stress, particularly for early-career educators balancing professional and family obligations.

This study highlights the power of strong leadership and collaborative school environments in making rural remote teaching more sustainable. Programs like mentorship initiatives, professional learning communities, and ongoing, context-specific training could provide much-needed support, helping teachers manage the unique demands of rural remote

education. When school leaders foster a culture of trust, open communication, and professional growth, they are not just improving workplace satisfaction; they are actively reducing stress and increasing retention.

These findings are significant because they provide a focused understanding of rural remote teacher experiences, offering practical guidance for districts and policymakers aiming to strengthen teacher attraction and retention efforts in rural remote regions. This is especially important because rural remote schools often face chronic staffing challenges, which can directly impact educational equity, student outcomes, and the vitality of rural remote communities. By addressing the root causes of teacher attrition and enhancing the conditions that support retention, educational leaders can create more stable, thriving learning environments for both teachers and students in underserved areas.

Limitations of the Findings

There are several limitations of the findings which must be acknowledged. The study was designed to be region-specific, limited to the SE-MASS region located in Southeastern Montana. While this allowed for in-depth, context-rich analysis, it restricts the generalizability of the findings. Additionally, the study relied on self-reported data from interviews, which can be influenced by memory biases or social desirability. Finally, the retrospective nature of some participants' reflections may have shaped how they interpreted their experiences. Despite these limitations, the findings offer valuable insight into the lived experiences of rural remote teachers and highlight actionable strategies for supporting educator success and longevity in similar contexts.

The study focused exclusively on Southeastern Montana, which may limit the generalizability of the findings to other rural remote regions with different demographic or socio-economic characteristics. The specific cultural and community dynamics in this region might not fully represent those in other rural remote areas. Although the SE-MASS region encompasses nine counties, interviews were obtained from only six of them, therefore, the findings are limited because the study's sample was not fully representative.

Additionally, the study relied on 20 interviews with a limited number of current and former teachers, eleven and nine respectively. It is possible that this may not have captured the full diversity of experiences or perspectives within the population of rural remote teachers. Another limitation is the self-reported nature of the data; participants may have provided responses that reflect their idealized experiences or retrospective views, rather than their initial, real-time feelings when making decisions to accept, stay or leave. The interviews were conducted in late January and early February, before the first-year teachers had completed a full academic year, meaning they had not yet experienced the challenges and dynamics of the end-of-year period. While this study focused on embeddedness factors, it did not deeply explore how external factors—such as state and national education policies, funding levels, or regional economic shifts—might influence teachers' decisions in the long term. These limitations suggest that further research, with larger, more diverse samples and a broader geographical focus, is needed to expand upon the findings presented here.

Limitations with the Framework

It is important to recognize that the distinctions between fit, links, and assets within the Teacher Embeddedness Framework (TEF) are not always clear-cut. These components often

operate in tandem, influencing and reinforcing one another in ways that make them difficult to isolate. For example, a teacher's relationship with a mentor may simultaneously reflect a cultural alignment with the school's values (fit), a meaningful interpersonal connection (link), and an invaluable form of professional support (asset). In this way, distinct embeddedness factors are not necessarily independent variables. Rather, they may interact within a larger single experience and reflect the complex and dynamic impact of embeddedness dimensions.

This overlap highlights the inherently dynamic and interconnected nature of the factors that contribute to teacher attraction and retention. Teachers do not experience these elements in isolation; rather, they encounter them as part of a broader ecosystem of influences that shape their decisions to stay or leave. A positive work environment may feel like a good fit because it aligns with a teacher's beliefs about collaboration and student-centered learning, but it is also sustained by strong links to colleagues and by assets such as leadership support and access to resources.

Moreover, what begins as one type of embeddedness factor may evolve into another over time. A teacher may initially be drawn to a school due to tangible assets, but over time, develop deeper social ties (links) and a stronger sense of cultural alignment (fit). This progression illustrates how the TEF elements are not static; they can shift, deepen, or become more meaningful depending on a teacher's stage in their career or life circumstances.

This complexity underscores the importance of applying the TEF with flexibility and context-specific understanding. Rather than treating fit, links, and assets as separate categories, it may be more helpful to view them as fluid, overlapping dimensions of a teacher's lived experience. In practice, this means that effective attraction and retention strategies must address

multiple facets of embeddedness simultaneously, recognizing how deeply intertwined these factors truly are. Such an approach enables a more comprehensive and empathetic understanding of what supports educators in rural and remote environments—and why some ultimately choose to remain committed to these communities.

Evaluation of Research Methods

To explore these questions, this study employed a semi-structured interview protocol infused with principles of holistic journey mapping. The interviews provided space for teachers to reflect on their career triumphs and challenges, while using the principles of journey mapping allowed them to visually outline key moments that shaped their experiences. These journey mapping principles guided the interviewer to ensure accuracy of the understanding of the teachers' experiences. The design of the interview protocol allowed the researcher to capture the participants' responses to the questions as well as their description of how they experienced their roles over time, creating a fuller picture of the factors influencing teacher embeddedness in rural remote Southeastern Montana communities.

While the study's number of participants and geographical location may limit generalizability, its rigorous data collection methods provide a valuable foundation for understanding rural remote teacher embeddedness. The alignment between these findings and the TEF framework by Larkin et al. (2021) suggests that focusing on specific elements such as values alignment (fit), personal connections (links), and concrete resources (assets) could be powerful steps toward improving teacher attraction and retention—not just in Southeastern Montana, but in rural remote schools across the country.

Contributions to Literature

This study offers important contributions to literature through the ways it helps to broaden the scope of research on rural remote teacher retention. Previous studies, (e.g., Larkin et al., 2021) tended to focus solely on teacher retention and attrition. While Larkin et al. (2021) provided valuable insights into why teachers leave or stay in schools, they did not explore the factors which play a role in initial decision-making process that leads teachers to choose rural remote teaching positions in the first place. However, the concept of the attraction of teachers to rural remote areas has been largely unexplored in existing literature. This study was able to extend the application of the Teacher Embeddedness Framework (TEF) to investigate the factors that draw teachers to rural schools. Thus, this study fills a critical gap in understanding how initial attraction, not just retention, influences long-term teacher commitment. This study's focus on attraction adds a new dimension to the conversation and underscores the complex, multifaceted nature of rural remote teacher employment. Furthermore, this study offers additional insights for developing effective strategies for schools to recruit and retain rural remote teachers. The significance of these findings lies in their potential to inform targeted strategies for improving teacher recruitment and retention in rural remote schools. By understanding that embeddedness is shaped through both emotional and structural factors, school leaders and policymakers can design initiatives that strengthen personal relationships, support professional growth, and offer tangible benefits such as housing or childcare. Moreover, these results add nuance to the TEF by illustrating how embeddedness is both situational and dynamic, evolving over the course of a teacher's career.

This study also adds valuable insights to the literature on teacher embeddedness, especially when it comes to teachers who work in rural remote locales. It deepens the understanding of the Teacher Embeddedness Framework (TEF) by showing just how crucial social and professional connections are in teachers' decisions to stay in their teaching positions. For teachers who remain in the profession, the strongest factors are strong relationships with students and the local community, having both personal and professional support systems, and the ability to have a healthy work-life balance. These factors tie directly to the TEF's core ideas of fit, link, and assets. When teachers feel that their personal values and teaching style fit with the school's culture, they are more likely to stay. Their link to the community and students gives them a sense of purpose and belonging that keeps them engaged. The assets they gain—whether it is from having a solid support network or the ability to balance work with personal life—help them stay energized and committed to their work. These findings highlight how important community ties are, particularly in rural remote areas where relationships often go beyond the classroom and become a central part of teachers' lives.

At the same time, this study introduces a new dimension to the existing theoretical frameworks by suggesting that teacher attraction to rural remote schools plays a crucial role in their decision to accept and remain in these positions. This concept, which has not been fully explored in previous research, could be incorporated into a new Rural Remote Teacher Embeddedness Framework (RRTEF). This theoretical framework would expand on the TEF by including not only retention but also the initial attraction to rural remote schools as a key factor in the teacher experience. Traditionally, research and policy discussions have focused heavily on factors related to teacher retention—such as job satisfaction, support systems, and professional

development—while largely overlooking the initial attractions that lead teachers to consider rural remote placements in the first place. By highlighting this often-neglected component, the study paves the way for the development of a more comprehensive conceptual model that considers the importance of place and the distinct needs of remote rural teachers.

This proposed framework would build upon and expand the existing Teacher Embeddedness Framework (TEF) by integrating both attraction and retention dimensions of the teacher experience. Specifically, the RRTEF would recognize the importance of personal, professional, and contextual factors that influence a teacher's initial attraction to rural and remote schools—such as lifestyle preferences, community values, opportunities for autonomy, or a sense of mission or adventure. It would then link these initial factors with the ongoing processes of belonging and support that contribute to retention.

In doing so, the RRTEF helps to fill a critical gap in literature and provides a more holistic understanding of what attracts teachers to rural areas and what keeps them there. It encourages a shift in both research and policy toward strategies that not only retain rural teachers but also actively attracts them through targeted recruitment, marketing of rural school benefits, and alignment of teacher values with community characteristics. As such, this framework could serve as a valuable tool for educational leaders, policymakers, and researchers aiming to strengthen the rural teacher workforce by acknowledging the full lifecycle of teacher engagement with rural and remote schools.

Attraction factors such as family ties, community support, and a welcoming school culture emerged as pivotal in drawing teachers to rural remote settings, highlighting the unique challenges and opportunities rural remote schools present in terms of recruitment. It is important

to differentiate between attraction and recruitment. While recruitment refers to the process of actively seeking and hiring teachers for positions, attraction focuses more on the intrinsic, personal factors that influence teachers to consider and ultimately accept positions in rural remote areas. Attraction involves the personal and emotional ties teachers have to the community, the school environment, and the lifestyle, while recruitment typically involves strategies and incentives employed by school districts to fill vacancies. The distinction between these two concepts is critical in understanding teacher decisions, as both play complementary but distinct roles in rural teacher retention.

The findings from this study challenge the way in which existing theories, such as the Job Embeddedness Theory (Mitchell et al. 2001), position individual job satisfaction as the primary determinant of teacher retention. While job satisfaction remains important, the study illustrates that rural remote teachers' decisions are also deeply influenced by personal and community dynamics—such as family connections, cultural identity, and a sense of belonging. The findings from this study broadens the literature by asserting that teacher retention in rural remote areas cannot be understood in isolation from these broader socio-cultural influences, suggesting that rural remote teacher embeddedness is an idea shaped by a complex blend of personal and professional factors.

This study adds to the limited body of literature focused on rural remote teacher experiences and offers deeper insights into the specific experiences of teaching in rural remote areas. While existing studies have largely centered on general teacher shortages or broad retention issues, very few have delved into the unique social, cultural, and professional dynamics that characterize teaching environments. This study not only helps to fill that gap but also offers

a focused exploration of the nature of teaching in rural remote areas. Importantly, no other known study to date has explicitly examined the interconnected concepts of teacher attraction, retention, and attrition within rural remote contexts as distinct yet interrelated processes. This research therefore introduces a new perspective of rural remote teaching by analyzing these factors through the lens of embeddedness.

Recommendations for Future Research

Future research will be able to build on this study by delving into what attracts teachers to rural remote schools and communities in different regions of the country. More research is needed to understand if the themes from this study resonate in other rural remote regions, or if place-specific needs emerge in other contexts. Either way, this knowledge will allow local leaders to tailor better strategies to fit the unique needs of their various communities. Just as teachers in places like Southeastern Montana face distinct challenges, so long-term studies could help us understand how the factors that attract teachers might change as schools, policies, and communities evolve. It would also be important for future studies to explore the experiences of secondary teachers specifically, as their roles, subject areas, and recruitment pathways may present different dynamics than those in elementary settings. It would be beneficial for future research to explore the intersection of state and national data such as job openings and retention rates with personal stories from teachers. This mix of quantitative and qualitative data would offer a deeper understanding of how factors like job satisfaction, social connections, and community ties play a part in drawing teachers to rural remote areas.

Findings from this study highlight the factors which keep teachers rooted in rural remote schools in Southeastern Montana, and it emphasizes the need for policies that recognize the social, cultural, and economic realities of rural remote education. Going forward, research must continue to refine these findings, ensuring that the solutions created are practical, lasting, and, above all, help rural remote teachers feel valued, supported, and truly connected to their communities. To fully understand the national landscape of rural remote teacher attraction and retention, future research should draw on national databases that track trends in job openings, movement, and long-term retention. Without this broader context, the findings of studies like this one could look quite different, as national data provide essential perspective on where localized experiences fit into wider patterns. Aligning local qualitative insights with national trajectories will strengthen both policy responses and strategies across rural remote regions.

Teachers' sense of fit, connections, and available resources often shift over time, typically looking quite different in the early years and evolving as new challenges and experiences emerge. This suggests that embeddedness is not static, and therefore, retention efforts must be ongoing and responsive to evolving teacher needs. While TEF effectively captures many dimensions of rural remote teacher experience, the data also suggest that some factors—such as mentorship, leadership alignment, and demographics (e.g., age, credential type, proximity to home)—may warrant more explicit emphasis within the framework. Future research could explore how these variables interact with embeddedness, potentially expanding or refining the model for greater applicability to rural remote contexts.

Chapter Summary

Teachers are attracted to rural remote schools for many reasons including family ties, community support, and a welcoming school culture. These bonds give teachers a deep sense of purpose—they are not just there to teach, but to be an integral part of the community. In these rural remote, close-knit schools, teachers often feel like they are truly making a difference, which is something that might not always be as tangible in larger districts. The support teachers receive from each other is also a big draw. In rural remote schools, where resources can be limited and challenges can feel overwhelming, the sense of camaraderie among colleagues is essential. Teachers lean on one another, sharing strategies and encouragement, and that support helps them stay committed to their roles. The reasons teachers are attracted to rural remote areas are strongly tied to the sense of family and community they experience. Family ties, a supportive community, and a welcoming school culture all make teachers feel like they belong. For many, these connections are not just important, they are vital. They allow teachers to build real relationships with students and families, fostering a deep sense of responsibility to the community.

For those who stay in the profession, social connections with students and community, professional and personal support systems, and the ability to maintain a healthy work-life balance play a large role in their decision to remain. The friendships they build with students and fellow teachers, combined with the ability to maintain a healthy work-life balance, help them stay grounded and committed to the work. The ability to maintain this balance further strengthens teachers' commitment to rural communities, making them feel supported and appreciated in both their professional and personal lives.

Staying in rural remote teaching positions long-term can be especially challenging due to three key factors. First, many teachers experience a misalignment between their personal values and the culture of the school. When a teacher's values, teaching philosophy, or approach to education do not align with the school's culture or expectations, it can create a disconnect that affects their overall job satisfaction. This misalignment can make teachers feel less connected to their work, ultimately contributing to burnout and a desire to leave the profession. Another challenge is the feeling of inadequate administrative support. Teachers in rural remote schools often report that they feel isolated when it comes to managing classroom behavior, receiving professional development, or seeking guidance. The lack of consistent support from school leaders can leave teachers feeling unsupported and, at times, overwhelmed by the demands of their job. Finally, financial strain is an issue. Many teachers in these areas find it hard to make ends meet with salaries that do not align with the rising cost of living. This can create a constant worry about making ends meet, which, over time, can take a toll on teachers' morale and well-being.

Addressing these issues will take a thoughtful, multi-layered approach. However, the evidence generated by this study provides clear guidance and practical steps that higher education preparation programs, local educational administration, and rural remote school boards can take to secure an effective rural remote teaching workforce for generations to come.

REFERENCES CITED

Aguliera, E., & Nightengale-Lee, B. (2020). Emergency remote teaching across urban and rural contexts: Perspectives on educational equity. *Information and Learning Science*, *121*(5/6), 471-478. https://doi.org/10.1108/ILS-04-2020-0100 (UK)

Alexandraki, I., Kern, A., Beck Dallaghan, G. L., Baker, R., & Seegmiller, J. (2023). Motivators and barriers for rural community preceptors in teaching: A qualitative study. *Medical Education*. Advance online publication. https://doi.org/10.1111/medu.15286

Arnold, M. L., Newman, J. H., Gaddy, B. B., & Dean, C. B. (2005). A look at the condition of rural education research: Setting a direction for future research. *Journal of research in Rural Education*, *20*(6), 1-25.

Arthur, L., & Bradley, S. (2023). Teacher retention in challenging schools: Please don't say goodbye! *Teachers and Teaching*, *29*(7–8), 753-771. https://doi.org/10.1080/13540602.2023.2201423

Azano, A. P., & Stewart, T. T. (2016). Confronting challenges at the intersection of rurality, place, and teacher preparation: Improving efforts in teacher education to staff rural schools. *Global Education Review*, *3*(1), 108-128.

Bacher-Hicks, A., Chi, O. L., & Orellana, A. (2023). Two years later: How COVID-19 has shaped the teacher workforce. *Educational Researcher, 52*(4), 219-229. https://doi.org/10.3102/0013189X231153659

Berry, B., & Shields, P. M. (2017). Solving the teacher shortage: Revisiting the lessons we've learned. *Phi Delta Kappan*, *98*(8), 8-18. https://doi.org/10.1177/0031721717708289

Balow, C. (2021). Teacher attrition: A critical problem for America's schools. *Lafayette, LA: SchoolMint, Inc.*

Barbosa, R. Jr., & Coneway, B. (2023). The unique challenges and best practices for rural school principals: Attracting and retaining skilled teachers in small communities. *School Leadership Review*, *18*(1).

Barley, Z. A., & Beesley, A. D. (2007). Rural school success: What can we learn. *Journal of research in rural education*, *22*(1), 1-16.

Barley, Z. A., & Brigham, N. (2008). Preparing Teachers to Teach in Rural Schools. Issues & Answers. REL 2008-No. 045. *Regional Educational Laboratory Central*.

Barnes, G., Crowe, E., & Schaefer, B. (2007). The cost of teacher turnover in five school districts: A pilot study. National Commission on Teaching and America's Future (NCTAF).

Bell, C., Gitomer, D., Savage, C., & McKenna, A. H. (2019). A synthesis of research on and measurement of STEM teacher preparation. *Commissioned Paper for the ARISE and The American Association for the Advancement of Science.*

Biddle, C., & Azano, A. P. (2016). Constructing and reconstructing the "Rural School Problem": A century of rural education research. *Review of Research in Education*, *40*(1), 298-325. https://doi.org/10.3102/0091732X16667700

Bocco, G. (2016). Remoteness and remote places. A geographic perspective. *Geoforum*, *77*, 178-181.

Brown, S. D., & Lent, R. W. (2016). Vocational psychology: Agency, equity, and well-being. *Annual review of psychology*, *67*(1), 541-565.

Bureau, U. C. (2024, November 18). *U.S. Census Bureau homepage*. Census.gov. https://www.census.gov/

Burton, M., & Johnson, A. S. (2010). "Where else would we teach?": Portraits of two teachers in the rural south. *Journal of Teacher Education*, *61*(4), 376-386.

Campbell, J. L., Quincy, C., Osserman, J., & Pedersen, O. K. (2013). Coding in-depth semistructured interviews: Problems of unitization and intercoder reliability and agreement. *Sociological methods & research*, *42*(3), 294-320.

Carver-Thomas, D., & Darling-Hammond, L. (2017, August 16). *Teacher turnover: Why it matters and what we can do about it.* Learning Policy Institute. https://learningpolicyinstitute.org/product/teacher-turnover-report

Craig, C. J., Hill-Jackson, V., & Kwok, A. (2023). Teacher shortages: What are we short of? *Journal of Teacher Education, 74*(3), 209-213. https://doi.org/10.1177/00224871231166244

Cramer, G. J., & Ryan, D. (2023). Responding to teacher shortages in bilingual education: A grow-your-own bilingual teacher education program. *The New Educator*, *19*(3), 182-196. https://doi.org/10.1080/1547688X.2023.2206454

Creswell, J, W. (2013). *Research design qualitative, quantitative, and mixed methods approaches*. SAGE.

Cuervo, H. (2023). Theorizing cultural (mis)recognition in rural school staffing: Implementing a social justice frame to understand challenges to attract rural teachers. *The Rural Educator, 44*(1), 28-39. https://doi.org/10.55533/2643-9662.1308

Darling-Hammond, L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational leadership*, *60*(8), 6-13.

Darling-Hammond, L. (2015). Want to close the achievement gap? Close the teaching gap. *American Educator*, *38*(4), 14-.

Darling-Hammond, L. (2019). Investing for student success. *Learning Policy Institute*.

Darling-Hammond, L., & McLaughlin, M. W. (2011). Policies that support professional development in an era of reform. *Phi Delta Kappan*, *92*(6), 81-92.

Darling-Hammond, L., DiNapoli, M., & Kini, T. (2023). The Federal Role in Ending Teacher Shortages. In *Learning Policy Institute*. Learning Policy Institute. https://learningpolicyinstitute.org/product/federal-role-ending-teacher-shortages-report

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development* (with assistance from D. Espinoza). https://learningpolicyinstitute.org/sites/default/files/product-files/Effective_Teacher_Professional_Development_REPORT.pdf

Davis, L., & Buchanan, R. (2022). Strength in numbers: The promise of community-based participatory research in rural education. *Theory and practice in rural education*, *12*(1), 105.

Davis, M. S. (2002). An Investigation of Factors Related to Teacher Retention in Small Rural School Districts in Montana.

DeAngelis, K. J., & Presley, J. B. (2011). Toward a more nuanced understanding of new teacher attrition. *Education and urban society*, *43*(5), 598-626.

Dewey H. B. (1910). Rural school possibilities. *Journal of Education*, 72, 541–542.

Dhaliwal, T. K., & Bruno, P. (2021). The rural/nonrural divide? K–12 district spending and implications of equity-based school funding. *AERA Open*, *7*(1), https://doi.org/10.1177/2332858420982549

Duncombe, W. D., & Yinger, J. M. (2010). School district consolidation: The benefits and costs. *School Administrator*, *67*(5), 10-17.

Erickson, L. D., Sanders, S. R., & Cope, M. R. (2018). Lifetime stayers in urban, rural, and highly rural communities in Montana. *Population, Space and Place*. https://doi.org/10.1002/psp.2133

Espinoza, D., Saunders, R., Kini, T., & Darling-Hammond, L. (2018). Taking the long view: State efforts to solve teacher shortages by strengthening the profession. Palo Alto, CA: Learning Policy Institute.

Evans, C., Burrell, T., Chavis, K., Farrow, J., Williams, C., Cooper, L., . . . & Byrd, R. (2021). Teacher preparation enrollment trends: A review of national and statewide data. *FOCUS on Colleges, Universities & Schools*, *15*(1).

Foght H. (1912). The country school. *Annals of the American Academy of Political and Social Science, 40*, 149-157.

Gagnon, D. J., & Mattingly, M. J. (2015). Rates of beginning teachers: Examining one indicator of school quality in an equity context. *The Journal of Educational Research*, *108*(3), 226-235.

Garcia, E., & Weiss, E. (2019). The Role of Early Career Supports, Continuous Professional Development, and Learning Communities in the Teacher Shortage. The Fifth Report in "The Perfect Storm in the Teacher Labor Market" Series. In *Economic Policy Institute*. Economic Policy Institute.

Garcia, E., & Weiss, E. (2019). U.S. Schools Struggle to Hire and Retain Teachers. The Second Report in "The Perfect Storm in the Teacher Labor Market" Series. In *Economic Policy Institute*. Economic Policy Institute.

Geurts, E.M.A., Reijs, R.P., Leenders, H.H.M. *et al.* Co-creation and decision-making with students about teaching and learning: a systematic literature review. *J Educ Change, 25*, 103-125 (2024). https://doi.org/10.1007/s10833-023-09481-x

Goegan, L. D., Radil, A. I., Brooks, A., & Daniels, L. M. (2020). Pre-service and in-service teachers' perspectives on academic success: More than just a grade. *Practical Assessment, Research & Evaluation, 25*(10).

Goldhaber, D., Strunk, K. O., Brown, N., Naito, N., & Wolff, M. (2020). Teacher staffing challenges in California: Examining the uniqueness of rural school districts. *AERA Open*, *6*(3). https://doi.org/10.1177/2332858420951833

Goldring, R., Taie, S., & Riddles, M. (2014). Teacher Attrition and Mobility: Results from the 2012-13 Teacher Follow-up Survey. First Look. NCES 2014-077. *National Center for Education Statistics*.

Gray A. A. (1916). The teacher's home. *Elementary School Journal*, 17, 201–208.

Green, S., Falecki, D., & Leach, C. (2022). Self-confidence and self-efficacy development in schools. In *Applied Positive School Psychology* (pp. 29-43). Routledge.

Guin, K. (2004). Chronic teacher turnover in urban elementary schools. *Education policy analysis archives*, *12*(42), n42.

Hanushek, E. A., & Woessmann, L. (2021). Education and economic growth. *Oxford Research Encyclopedia of Economics and Finance*. https://doi.org/10.1093/acrefore/9780190625979.013.651

Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2004). Why public schools lose teachers. *Journal of human resources*, *39*(2), 326-354.

Hanushek, E. A., Ruhose, J., & Woessmann, L. (2016). It pays to improve school quality. *Education Next, 16*(3).

Henke, R. R., Zahn, L., & Carroll, D. (2001). *Attrition of new teachers among recent college graduates: Comparing occupational stability among 1992–93 graduates who taught and those who worked in other occupations* (NCES 2001-189). National Center for Education Statistics. https://nces.ed.gov/pubs2001/2001189.pdf

Hillyer T. A. (1916). The preparation of rural school teachers by state normal schools. *Journal of Education, 84*(2 (2088)), 31-33. http://www.jstor.org/stable/42807377

Holme, J. J., Jabbar, H., Germain, E., & Dinning, J. (2017). Rethinking Teacher turnover: Longitudinal measures of instability in schools. *Educational Researcher, 47*(1), 62-75. https://doi.org/10.3102/0013189X17735813

Holtom, B. C., Mitchell, T. R., & Lee, T. W. (2006). Increasing human and social capital by applying job embeddedness theory. *Organizational Dynamics, 35*(4), 316-331. https://doi.org/10.1016/j.orgdyn.2006.08.007

Howley, C. B., & Howley, A. (2010). Poverty and school achievement in rural communities: A social-class interpretation. *Rural Education for the Twenty-First Century: Identity, Place, And Community In A Globalizing World*, 34-50.

Hoy, A. W., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, *21*(4), 343-356.

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

Ingersoll, R. M., & Smith, T. M. (2003). The wrong solution to the teacher shortage. *Educational leadership*, *60*(8), 30-33.

Ingersoll, R. M., & Strong, M. (2011). The impact of teacher turnover on student achievement. *Educational Researcher*, 40(3), 107-117.

Ingersoll, R. M., & Tran, H. (2023). Teacher shortages and turnover in rural schools in the US: An organizational analysis. *Educational Administration Quarterly*, *59*(2), 396-431. https://doi.org/10.1177/0013161X231159922

Ingersoll, R. M., & Tran, H. (2023). The rural teacher shortage. *Phi Delta Kappan*, *105*(3), 36–41. https://doi.org/10.1177/00317217231212008

Ingersoll, R. M., Sirinides, P., & Dougherty, P. (2018). Leadership matters: teachers' roles in school decision making and school performance. *American Educator*, *42*(1), 13.

Ingersoll, R., & Merrill, E. (2013). *Seven trends: The transformation of the teaching force* (RR-79). Consortium for Policy Research in Education. https://www.cpre.org/sites/default/files/workingpapers/1463_seventrendsupdatedoctober2013.pdf#:~:text=Below%2C%20we%20summarize%20seven%20of%20the%20most%20prominent,the%20trends%2C%20two%20large%20questions%20arise%3A%201.%20Why%3F

Jimerson, L. (2003). *The Competitive Disadvantage: Teacher Compensation in Rural America.* (Policy Brief). Rural School and Community Trust.

Johnson, S. M., & Birkeland, S. E. (2003). Pursuing a "sense of success": New teachers explain their career decisions. *American Educational Research Journal*, *40*(3), 581-617.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, *47*(2), 263–291. https://doi.org/10.2307/1914185

Kelly, E. M., Harbin, S. G., Spaulding, S. A., Roberts, C. A., & Artman-Meeker, K. (2022). A qualitative examination of family and educator perspectives on early childhood behavior supports. *Topics in Early Childhood Special Education*, *42*(2), 162-174. https://doi.org/10.1177/0271121420986868

Kormos, E., & Wisdom, K. (2021). Rural schools and the digital divide: Technology in the learning experience. *Theory & Practice in Rural Education*, *11*(1), 25-39.

Kuehl, R. (2024). Race and rurality: Considerations for advancing higher education equity. *Journal of Research in Rural Education, 40*(2), 1-6. https://doi.org/10.26209/JRRE4002

Larkin, D. B., Carletta, L., Patzelt, S. P., & Ahmed, K. (2022). Making sense of science teacher retention: Teacher embeddedness and its implications for new teacher support. *American Association for the Advancement of Science: Washington, DC, USA*, 275-319.

Larkin, D. B., Patzelt, S. P., Carletta, L., & Ahmed, K. (2021, April 11). *Toward a theory of job embeddedness in teacher retention: Implications for the COVID-19 pandemic era* [Paper presentation]. AERA Annual Conference. https://www.montclair.edu/teaching-and-learning/wp-content/uploads/sites/123/2021/05/AERA-2021-paper%E2%80%94JE-framework-v06.pdf

Larkin, D., Carletta, L., Patzelt, S., & Ahmed, K. (2021, April 9). *Job embeddedness and professional support: A case study of science teacher retention in one district* [Paper presentation]. NARST Annual Conference. https://www.montclair.edu/teaching-and-learning/wp-content/uploads/sites/123/2021/05/NARST-2021-paper-Larkin-et-al.pdf

Lee, T., Burch, T. C., & Mitchell, T. R. (2014). The story of why we stay: A review of job embeddedness. *Annual Review of Organizational Psychology and Organizational Behavior*, *1*, 199-216.

Lochmiller, C. R., Sugimoto, T. J., & Muller, P. A. (2016). *Teacher retention, mobility, and attrition in Kentucky public schools from 2008 to 2012* (REL 2016–116). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia. http://ies.ed.gov/ncee/edlabs

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.

Lowe, J. M. (2006). Rural education: Attracting and retaining teachers in small schools. *Rural Educator*, *27*(2), 28-32.

Mallol, C. M., Holtom, B. C., & Lee, T. W. (2007). Job embeddedness in a culturally diverse environment. *Journal of Business and Psychology*, *22*, 35-44.

Manla, V. H. (2021). School climate: Its impact on teachers' commitment and school performance. *Journal of World Englishes and Educational Practices*, *3*(2), 21-35.

Maranto, R. (2013). How do we get them on the farm? Efforts to improve rural teacher recruitment and retention in Arkansas. *The Rural Educator, 34*(1), 4.

Marietta, G., & Marietta, S. (2021). *Rural education in America: What works for our students, teachers, and communities.* Harvard Education Press.

Martin, L. E., & Mulvihill, T. M. (2016). Voices in education: Teacher shortage: Myth or reality? *The Teacher Educator*, *51*(3), 175–184. https://doi.org/10.1080/08878730.2016.1177427

Marvel, J., Lyter, D. M., Peltola, P., Strizek, G. A., Morton, B. A., & Rowland, R. (2007). Teacher attrition and mobility: Results from the 2004-05 Teacher Follow-Up Survey (NCES 2007-307). *National Center for Education Statistics*.

Matulka, C. N. (2024). Experiences of recent Nebraska STEM teachers who have left teaching. *Educational Leadership Theses, Dissertations, and Student Creative Activity*, 48.

Maxwell, B., Weed, B., Ippolito, L., Bekkerman, A., Boone, M., Mills-Novoa, M., Weaver, D., Burrows, M., & Burkle, L. (2017). *Agriculture and climate change in Montana*. Montana Climate. https://montanaclimate.org/chapter/agriculture

McHenry-Sorber, E. (2019). Why rural matters 2018-2019: The time is now: Interview with authors Jerry Johnson, Daniel Showalter, and Sara Hartman. *The Rural Educator*, *40*(3). https://doi.org/10.35608/ruraled.v40i3.930

McHenry-Sorber, E., & Campbell, M. P. (2019). Teacher shortage as a local phenomenon: District leader sensemaking, responses, and implications for policy. *Education Policy Analysis Archives*, *27*(87). https://doi.org/10.14507/epaa.27.4413

McShane, M. Q., & Smarick, A. (2018). No longer forgotten: The triumphs and struggles of Rural Education in America. Rowman & Littlefield.

Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablynski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, *44*(6), 1102-1121. https://doi.org/10.5465/3069391

Moffa, E., & McHenry-Sorber, E. (2018). Learning to be rural: Lessons about being rural in teacher education programs. *The Rural Educator*, *39*(1), 26-40.

Monk, D. H. (2007). Recruiting and retaining high-quality teachers in rural areas. *The Future of Children*, *17*(1), 155–174. https://doi.org/10.1353/foc.2007.0009

Montana Department of Agriculture. Home. (n.d.). https://agr.mt.gov/

Montana Office of Public Instruction (MT)**.** (n.d.). Critical quality educator shortages. Retrieved from https://bpe.mt.gov/_docs/Critical-Quality-Educator--Report-Jan-2023.pdf

Montana Office of Public Instruction. (2019). *Critical quality educator shortages: Identification of schools and licensure and endorsement areas impacted by critical quality educator shortages in the 2022-23 school year*. https://leg.mt.gov/content/Committees/Interim/2019-2020/Education/Meetings/Jan2020/Critical_Educator_Shortage_Report.pdf

Montana Office of Public Instruction. (2021). *Facts about Montana education 2021*. https://opi.mt.gov/Portals/182/Superintendent-Docs-Images/Facts%20About%20Montana%20Education.pdf?ver=2020-09-16-132427-883

Montana Office of Public Instruction. (2024, February 12). *Superintendent Arntzen releases 2023-2024 public, private, and homeschool enrollment data*. https://news.mt.gov/Office-of-Public-Instruction/Superintendent-Arntzen-Releases-2023-2024-Public-Private-and-Homeschool-Enrollment-Data

Montana Rural Education Association. Montana Rural Education Association - The Rural School Advocate. (n.d.). https://mrea-mt.org/

Morganson, V. J., Major, D. A., Streets, V. N., Litano, M. L., & Myers, D. P. (2015). Using embeddedness theory to understand and promote persistence in STEM majors. *The Career Development Quarterly*, *63*(4), 348–362. https://doi.org/10.1002/cdq.12033

National Center for Frontier Communities. (n.d.) Definition of frontier. http://frontierus.org/what-is-frontier/

NCES locale classifications and criteria - national center for educational statistics (n.d.). https://nces.ed.gov/programs/edge/docs/LOCALE_CLASSIFICATIONS.pdf

Newby, H. (1983). The sociology of agriculture: Toward a new rural sociology. *Annual Review of Sociology*, *9*(1), 67-81.

Nguyen, T. D., Pham, L., Springer, M. G., & Crouch, M. (2019). The factors of teacher attrition and retention: An updated and expanded meta-analysis of the literature. *Annenberg Institute at Brown University*, 19-149.

OECD (2012), Equity and Quality in Education: Supporting Disadvantaged Students and Schools, OECD Publishing. http://dx.doi.org/10.1787/9789264130852-en

Oyen, K., & Amy Schweinle. (2021). Addressing teacher shortages in rural America: What factors help new teachers apply to teach in rural settings? *The Rural Educator (Fort Collins, Colo.)*, *41*(3), 12–25. https://doi.org/10.35608/ruraled.v41i3.923

Ostrom, A. L., Bitner, M. J., & Burkhard, K. A. (2011). Leveraging service blueprinting to rethink higher education: When students become "valued customers," everybody wins. *Center for American Progress*.

Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). Solving the teacher shortage: how to attract and retain excellent educators. *Learning Policy Institute.* https://doi.org/10.54300/262.960

Preston, J. P. (2012). Rural and urban teaching experiences: Narrative expressions. *Alberta Journal of Educational Research*, *58*(1), 41–57. https://doi.org/10.11575/ajer.v58i1.55556

Preston, J. P., Jakubiec, B. A., & Kooymans, R. (2013). Common challenges faced by rural principals: A review of the literature. *The Rural Educator*, *35*(1), 1.

Povasnik, S., KewalRamani, A., Coleman, M.M., Gilbertson, L., Herring, W., and Xie, Q. (2007). *Status of education in rural America* (NCES 2007-040). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. https://nces.ed.gov/pubs2007/2007040_1.pdf

Ratcliffe, M., Burd, C. Holder, K., & Fields, A. (2016). *Defining rural at the U.S. Census Bureau* (ACSGEO-1). US Census Bureau. https://www2.census.gov/geo/pdfs/reference/ua/Defining_Rural.pdf

Reeves, C. (2003). *Implementing the No Child Left Behind Act: implications for rural schools and districts.* Educational Policy Publications. https://files.eric.ed.gov/fulltext/ED475037.pdf

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, *50*(1), 4-36.

Rynes, S. L., & Barber, A. E. (1990). Applicant attraction strategies: An organizational perspective. *Academy of Management Review, 15*(2), 286-310. https://doi.org/10.5465/amr.1990.4308158

Samson, S., Granath, K., & Alger, A. (2017). Journey mapping the user experience. *College & Research Libraries*, *78*(4), 459–472. https://doi.org/10.5860/crl.78.4.459

Santoro, D. A. (2021). *Demoralized: Why teachers leave the profession they love and how they can stay.* Harvard Education Press.

Scallon, A. M., Bristol, T. J., & Esboldt, J. (2023). Teachers' perceptions of principal leadership practices that influence teacher turnover. *Journal of Research on Leadership Education*, *18*(1), 80-102. https://doi.org/10.1177/19427751211034214

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.

Schwartzbeck, T. D. (2003). *Declining counties, declining school enrollments*. American Association of School Administrators. https://files.eric.ed.gov/fulltext/ED478349.pdf

Seelig, J. L., & McCabe, K. M. (2021). Why teachers stay: Shaping a new narrative on rural teacher retention. *Journal of Research in Rural Education*, *37*(8).

Shen, J. (1997). Teacher retention and attrition in public schools: Evidence from SASS91. *The Journal of Educational Research*, *91*(2), 81-88. https://doi.org/10.1080/00220679709597525

Showalter, D., Hartman, S.L., Eppley, K., Johnson, J., & Klein, R. (2023). Why rural matters 2023: Centering equity and opportunity: A discussion with the research team. *The Rural Educator, 44*(4), 69-71. https://doi.org/10.55533/2643-9662.1441

Stark, K., & Koslouski, J. (2021). The emotional job demands of special education: A qualitative study of alternatively certified novices' emotional induction. *Teacher Education and Special Education, 44*(1), 60-77. https://doi.org/10.1177/0888406420931497

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the US*. Learning Policy Institute. https://learningpolicyinstitute.org/product/coming-crisis-teaching

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, *27*(35). https://doi.org/10.14507/epaa.27.3696

Sykes, A. O. (2003). The least restrictive means. *The University of Chicago Law Review*, *70*(1), 403-419.

Szpaller, K. (2021). Montana teacher shortage 'crisis 'escalates. *Daily Inter Lake*. https://dailyinterlake.com/news/2021/jul/18/montana-teacher-shortage-crisis-escalates/

Taie, S., & Lewis, L. (2022). *Characteristics of 2020-21 public and private k-12 school teachers in the United States: Results from the National Teacher and Principal Survey (NCES 2022-113).* National Center for Education Statistics. https://nces.ed.gov/pubs2022/2022113.pdf

The Foundation for Montana history. The Foundation for Montana History. (n.d.). https://www.mthistory.org/

UNESCO. (2023). *The teachers we need for the education we want: The global imperative to reverse the teacher shortage.* UNESDOC. https://unesdoc.unesco.org/ark:/48223/pf0000387001

UNESCO. (2016).*The world needs almost 69 million new teachers to reach the 2030 education goals*. UNESDOC. https://unesdoc.unesco.org/ark:/48223/pf0000246124

Tieken, M. C. (2017). Commentary: Rural histories, rural boundaries, rural change. *American Educational Research Journal*, *54*(1_suppl), 216S-218S. https://doi.org/10.3102/0002831216678318

Tieken, M. C., & Montgomery, M. K. (2021). Challenges facing schools in rural America. *State Education Standard*, *21*(1), 6-11.

Tikly, L., & Barrett, A. M. (2011). Social justice, capabilities and the quality of education in low income countries. *International journal of educational development*, *31*(1), 3-14.

Tran, H., & Smith, D. (2019). Insufficient money and inadequate respect: What obstructs the recruitment of college students to teach in hard-to-staff schools. *Journal of Educational Administration*, *57*(2), 152-166. https://doi.org/10.1108/JEA-07-2018-0129

Tran, H., Hardie, S., Gause, S., Moyi, P., & Ylimaki, R. (2020). Leveraging the perspectives of rural educators to develop realistic job previews for rural teacher recruitment and retention. *Rural Educator*, *41*(2), 31-46. https://doi.org/10.35608/ruraled.v41i2.825

Tyack, D. B. (1974). *The one best system: A history of American urban education*. Harvard University Press.

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, *24*(1), 80-91.

Viadero, D. (2018). Teacher recruitment and retention: It's complicated. *Education Week*, *37*(18), 4.

Visionary leaders united in providing, advocating, and creating education excellence for Montana students!. Home. (n.d.-b). https://www.sammt.org/

Walker, B. C. (2022). *Factors that lead to teachers applying to and staying in a high-poverty, low-performing elementary school* [Doctoral dissertation, Virginia Polytechnic Institute and Sate University]. Virginia Tech Repository. https://vtechworks.lib.vt.edu/server/api/core/bitstreams/a8165dce-129f-4a90-9f04-7a8a2c88a0d4/content

Wals, A. E. J., & Benavot, A. (2017). Can we meet the sustainability challenges? The role of education and lifelong learning. *European Journal of Education*, *52*(4), 404–413. https://doi.org/10.1111/ejed.12250

Wang, H., & Klassen, R. M. (2023). Longitudinal relationships between teachers' utility values and quitting intentions: A person-organization fit perspective. *Teaching and Teacher Education, 127*, 104109. https://doi.org/10.1016/j.tate.2023.104109

Wang, J., Tigelaar, D. E., & Admiraal, W. (2021). Rural teachers' sharing of digital educational resources: From motivation to behavior. *Computers & Education*, *161*, 104055.

Watson, J. M. (2018). Job embeddedness may hold the key to the retention of novice talent in schools. *Educational Leadership Administration: Teaching and Program Development,* 29(1).

What's the cost of teacher turnover? Learning Policy Institute. (2017, September 13). https://learningpolicyinstitute.org/product/the-cost-of-teacher-turnover

Why rural matters 2018-2019: The time is now: Interview with authors ... (n.d.-b). https://files.eric.ed.gov/fulltext/EJ1237923.pdf

William Lee, T., Burch, T. C., & Mitchell, T. R. (2014). The story of why we stay: A review of job embeddedness. *Annual Review of Organizational Psychology and Organizational Behavior*, *1*(1), 199–216. https://doi.org/10.1146/annurev-orgpsych-031413-091244

Williams, S. M., & Grooms, A. A,. *Educational opportunity in rural contexts: The politics of place*. Information Age Publishing, Inc, 2016.

Yildiz, K. (2018). The relationship between teachers' job embeddedness and vocational belonging perceptions. *Universal Journal of Educational Research*, *6*(7), 1454-1466. https://doi.org/10.13189/ujer.2018.060706

Yin, R. K. (2014). *Case study research: Design and methods*. SAGE.

Yoon S. Y., Mihaly K., & Moore A. (2019). *A Snapshot of educator mobility in Montana: Understanding issues of educator shortages and turnover*. Portland, OR: Regional Educational Laboratory Northwest. https://files.eric.ed.gov/fulltext/ED598943.pdf

APPENDICES

APPENDIX A

INTERVIEW PROTOCOL

EMBEDDED IN EDUCATION: EXPLORING RURAL REMOTE TEACHERS' PERSPECTIVES OF CONNECTION ON ATTRACTION, RETENTION, AND ATTRITION IN SOUTHEASTERN MONTANA SCHOOLS

Interview Protocol

Participants include 20 teachers, 11 current teachers, and 9 former teachers for a total of 20 interviews.

Introductory Script

Thank you for your willingness to meet with me today. My name is Anne Anderson, and I'm conducting interviews to learn more about teachers' perspectives on connection with and contribution to their schools and communities here in southeastern Montana.

The goal of our conversation today is to understand your experience as an educator, how you feel, or felt, your work aligns with the needs of the school, and how you contribute to both the school environment and the broader community. This conversation is an opportunity for you to share your thoughts, experiences, and any insights you have about the intersection of teaching and community life. There are no right or wrong answers – I'm simply looking to understand your perspective.

Feel free to be as open and detailed as you'd like. If you're ready, we can dive right into the questions.

During this interview, I will ask you several open-ended questions, many of which are self-reflective, primarily in three areas:

1. Your experience and perspective on your attraction to teaching in a rural remote school;

2. The factors that influenced you to stay at the school; or
3. The factors that influenced you to leave the school.

You may choose not to answer any, or all, of the questions and you may stop this interview at any time. I will be recording the audio of this interview, transcribe it verbatim, and will give you a copy of the transcript for approval. Your replies are confidential, and you will not be identified individually. All names will be removed from transcripts.

Interview Questions

Section 1

Let's begin today by talking about what factors led you to initially accept your teaching positions in this rural remote community.

Attraction:

1. Please tell me your name and how long you've lived in [town].
    - Probes: Where did you grow up? Do you have family in town? Where else have you lived? Why did you move here?
    - Probes: How many years have you been in your role? Where else have you worked?
2. When you first considered the job, how did the lifestyle and community of this rural area influence your decision?
3. Did the school culture, community support, or potential for professional growth influence your decision to accept this position? If so, in what way?

4. Were there specific personal or family considerations that encouraged you to teach in this rural location?

Retention:

1. What factors contribute to staying in your current position in this rural community?
    a. Has that changed? If so, how did it change? If not, why do you think it hasn't?
2. How do you feel about the support you receive from the school, your colleagues, and the community? Does it influence your decision to continue teaching here?
3. How would you describe your connection to the students and families in this community? How does that impact your desire to stay in this teaching role?
4. What aspects of the school culture and environment make you feel like you "belong" here, and how does that affect your decision to remain?
5. Have there been any challenges or rewards that have influenced your decision to stay in the profession here, rather than seeking opportunities elsewhere?

Attrition:

1. What were the main reasons that led you to decide to leave your teaching position in this rural community?
2. How did the challenges of working in a rural, remote area impact your decision to leave?
3. Was there a lack of support from the school or community that influenced your decision to leave? If so, can you explain?
4. How did your connection to the community or students change over time, and how did that influence your decision to leave?

5. Were there any professional or personal reasons (such as career advancement or family needs) that led you to leave the position?
6. In hindsight, are there any factors that you feel could have influenced you to stay longer in your role?

Section 2

As part of today's interview, I'd like to work with you on filling out a journey map. This will help me visually capture the key moments and experiences you've had in your teaching career, especially related to your time in this rural community. The map will highlight the points at which you made important decisions or faced challenges, and we'll be able to connect those to the embeddedness factors we're discussing. You don't need to worry about making it perfect or filling in every detail—just share what feels most significant to you. We'll be reflecting on various stages, from deciding to accept your position, to your experiences in the classroom, to any decision points related to staying or leaving.

- Starting the Journey:
    - "What influenced your decision to accept this position and move to this area?"
    - "Where were you personally or professionally at that time?"
- Key Decision Points:
    - "Looking at your journey map, what made you decide to stay in the role or leave?"
    - "What challenges, opportunities, or rewards shaped your career here?"
- Moments of Change or Reflection:

  - "Were there moments you considered leaving, or experiences that made you want to stay?"
  - "Can you identify a turning point where your connection to the school or community influenced your decision?"
- Embeddedness Factors:
  - "Which embeddedness factors—like fitting in with the school and community, building relationships, or the assets of the job or community—were most significant at different points in your journey?"
  - "Were there moments when you felt especially connected to the community or school, and how did that shape your decisions?"
- Looking Back:
  - "What stands out most in your journey, and how did these factors impact your experience in this rural remote setting?"
  - "Looking back, would you have made any different decisions, or been influenced to stay or leave earlier?"

Section 3

- Now that we've discussed some key points of your journey, do you feel there are any other significant experiences or factors that we haven't captured yet? Is there anything you would add to your journey map that reflects your professional or personal growth?
- How do you feel about the overall journey you've mapped out? Does it provide a clear picture of your teaching career in this rural community?

Closing

I really appreciate you taking the time to fill out this journey map and reflect on these experiences. The insights you've shared will help me understand how embeddedness factors influence decisions in rural remote teaching roles. Before we finish, do you have any final thoughts or reflections on your journey?

APPENDIX B

INFORMED CONSENT

SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH AT MONTANA STATE UNIVERSITY

Title of the Project: EMBEDDED IN EDUCATION: EXPLORING RURAL REMOTE TEACHERS' PERSPECTIVES OF CONNECTION ON ATTRACTION, RETENTION, AND ATTRITION IN SOUTHEASTERN MONTANA SCHOOLS

My name is Anne Anderson and I am a doctoral student at Montana State University. I have been a rural remote teacher in Southeastern Montana for 25 years. My protocol number is 2024-1925.

You are being asked to participate in a research study to explore the possible answers to the question: What factors influenced your decision to work in and stay/leave a rural remote school in Southeastern Montana? This may help us better understand retention practices, improve educational quality, and promote better policy in rural remote Southeastern Montana schools. There are no foreseen risks or benefits to the volunteers participating in this interview. This project is not funded nor is there cost to the subjects.

Montana State University and I will treat your identity with professional standards of confidentiality. Your interview answers will only be used to help inform retention practices that could be implemented in the rural remote Southeastern Montana school districts.

Because you have worked in a rural remote Southeastern Montana school district, you have been identified as a possible subject. **Participation is voluntary. If you agree to participate you will be asked to answer questions about your experiences that prompted you to leave the education profession. Participation is voluntary and you can choose to not answer any questions you do not want to answer and/or you can stop at any time.**

If you have any questions or concerns, please contact me, Anne Anderson at 406-853-5289 or andersona@milescc.edu. For Institutional Research Board Guidelines for research at Montana State University, please contact the Office of Research Integrity and Compliance at PO Box 173085 Bozeman, MT 59717, or call 406-994-6732. More information can be found on the MSU website, https://www.montana.edu/ric/irb/index.html.

AUTHORIZATION: I have read the above and understand the discomforts, inconvenience, and risks of this study. I, _____, agree to participate in this research. I understand that I may later refuse to participate and that I may withdraw from the study at any time. I have received a copy of this consent form for my records.

Signed: _____

Investigator: _____

Date: _____