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## Predicting Teacher Job Satisfaction and Propensity to Leave in the Bering Strait School District in Rural Alaska Through the Application of Herzberg's Motivation-Hygiene Theory

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PREDICTING TEACHER JOB SATISFACTION AND PROPENSITY TO LEAVE IN  
THE BERING STRAIT SCHOOL DISTRICT IN RURAL ALASKA THROUGH THE  
APPLICATION OF HERZBERG'S MOTIVATION-HYGIENE THEORY

by

Matthew F. Palmer

A DISSERTATION

Presented to the Faculty of  
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PREDICTING TEACHER JOB SATISFACTION AND PROPENSITY TO LEAVE IN  
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Matthew F. Palmer, Ed.D

University of Nebraska, 2021

Advisor: Nicholas J. Pace

This study examines the relationship between teacher job satisfaction and teacher indicated propensity to leave their positions in one very unique geographical and cultural educational context - the Bering Strait School District in rural Western Alaska. Data was collected for this quantitative study via a questionnaire survey instrument utilizing Likert scales that was distributed to teachers via email and completed online. The questionnaire items focused on determinants of teacher job satisfaction and teacher indicated propensity to leave as found in a body of research which demonstrates that job satisfaction influences employee propensity to leave, and that employee propensity to leave influences actual employee turnover.

The factors of Herzberg's motivation-hygiene theory (Herzberg, 1968/1987; Herzberg, Mausner, & Snyderman, 1959) provided the theoretical framework for the determinants of job satisfaction and dissatisfaction on the questionnaire survey instrument, and an employee propensity to leave scale (Murray, 1998) was used to measure teacher indicated propensity to leave their positions. Statistical techniques commonly used in the social sciences were utilized to analyze teacher reported data to examine the relationships between determinants of teacher job satisfaction and

dissatisfaction and teacher propensity to leave their positions. It is intended that the results of this study will contribute to developing a strategic approach to maximizing teacher job satisfaction and retention in the region, contribute to the body of theoretical knowledge in the field, and inform further research concerning teacher job satisfaction and teacher propensity to leave.



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## **Chapter I**

### **Introduction to the Study**

#### **Organization of the Study**

This study will examine the relationship between teacher job satisfaction and teacher indicated propensity to leave their positions in the Bering Strait School District in rural Western Alaska. Chapter I presents an introduction to the proposed study and will introduce the problem to be examined, the context it will be examined, and the key parameters of the study. Chapter II reviews relevant scholarly literature in order to: (a) provide an overview of the unique geographical, historical, and cultural context of schooling in the Bering Strait School District in rural Western Alaska, and the demographics, lifestyle, and beliefs of its Alaska Native stakeholders; (b) highlight what is known about job satisfaction and propensity to leave, and how these factors relate to teacher retention and turnover - nationally, in rural areas, in Alaska, and in rural areas of Alaska; and (c) explicate the theoretical framework of the study - the job-related factors of the motivation-hygiene theory (Herzberg, Mausner, & Snyderman, 1959) will be used to frame the determinants of teacher job satisfaction, and will be used in conjunction with a employee propensity to leave scale (Murray, 1998) to measure teacher indicated propensity to leave the school, the school district, and the teaching profession. Prior studies in PK-12 education using a similar theoretical framework will also be reviewed. Chapter III establishes the methodology and procedures for the study, covering the quantitative research design, questionnaire survey instrument, data collection, and methods of statistical analysis. Chapter IV presents and analyzes the data collected. Chapter V presents an explication and summary of the results, theoretical implications,

practical implications, recommendations for educational policy and practice, and recommendations for future research.

### **Organization of Chapter I**

Chapter I will provide an introduction to the study. This chapter will introduce the problem to be examined, the context it will be examined, and the key parameters of the study. This chapter will provide informational headings on: the impact of quality teachers, high rates of teacher turnover, the negative impact of high rates of teacher retention, the disproportional impact of teacher turnover, teacher turnover and teacher shortages, the relationship between job satisfaction and teacher retention and turnover, strategic approaches to addressing teacher retention and turnover, the pragmatic approach of this study, teacher retention in the rural context, the rural Alaskan context of the study, the Bering Strait School District, the Alaska Native stakeholders of the Bering Strait region, the research interest and background of the researcher, the selection of the job satisfaction and propensity to leave constructs, the rationale for the rejection of other constructs and theoretical constructs, the theoretical framework of the study, the statement of the research problem, the purpose statement, research questions, the survey instrument chosen for data collection, the definition of terms, the assumptions of the study, the delimitations of the study, the limitations of the study, the significance of the study, and the chapter summary.

### **The Impact of Quality Teachers**

High quality teachers are the cornerstone of successful educational systems (National Center for Education Statistics, 1997). Hattie (2017) found in his meta-analysis of hundreds of thousands of education research studies that ‘teacher attributes’ was the

aspect that had the single largest impact on student achievement - with an effect size of 1.62 (representing over four times the average effect size of .40). Hattie (2003) concluded that teachers - what they know, do, and care about - alone accounts for about 30% of the variance in student achievement regardless of variation in student factors, home factors, other school factors (including class size), or school leadership. Darling Hammond (2000) found that after controlling for poverty and student language background that “the most consistent highly significant predictor of student achievement in reading and mathematics each year tested is the proportion of well qualified teachers” (p. 23). It is widely accepted that the teacher is the single most important factor in influencing student achievement that is within the control of a school (Gunther, 2015).

As scholars have repeatedly demonstrated the significant influence that teachers have on the quality of student education and student outcomes (Hanushek, 2010; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004), school administrators, public policymakers, and educational stakeholders have invested more and more resources in attempting to ensure that all classrooms in public schools are staffed with effective teachers. Since the issuance of *A Nation at Risk* (U.S. National Commission on Excellence in Education, 1983) over three decades ago, numerous educational studies, state and federal commissions, and national reports have emphasized that improving teacher quality in schools should be an essential component of educational reform initiatives. Prominent federal education legislation has underscored the importance of effective teachers. The ‘No Child Left Behind’ Act of 2002 (a renewal of the Elementary and Secondary Education Act of 1965) (U.S. Department of Education, 2002) required the staffing of a ‘highly qualified’ teacher in every classroom, and more recently, the ‘Race to the Top’



fund has emphasized the standards of teacher quality by aiming for the placement of an effective teacher in every classroom. To this day, efforts to address the inadequate availability and retention of qualified teachers to schools in need continues to be a point of emphasis for educational practitioners, education groups, and education advocates across the nation (Finster, 2013).

### **High Rates of Teacher Turnover**

Nationally, the average rate of teacher turnover has increased over the past three decades (Carver-Thomas & Darling-Hammond, 2017). The rate of teachers leaving the profession has increased from around 5% in the 1990's to currently hover around 8% of the teacher workforce annually (Carver-Thomas & Darling-Hammond, 2017). It is known that an alarming number of teachers tend to leave the profession during their first five years of teaching, with teacher attrition rates approaching 50% (Ingersoll, 2001) and rates in many remote rural and low-income communities soaring even higher (NCTAF, 2003). Lyles (2016), citing Goodwin (2012), notes that after their first year of teaching, 15% of new teachers will leave the teaching profession and another 14% will leave their school to take a different teaching position. Every fall when students return to their classrooms to begin a new school year, about 12% of the teachers in the nation do not return, and in some hard-to-staff schools the percent leaving is double or triple this rate (Lyles, 2016). Alliance for Excellent Education (2008) found that around 157,000 teachers each year will not return to teaching and another 232,000 change schools (Lyles, 2016).

Nationwide, each year, approximately 20% of all teachers decide to leave the school in which they are currently teaching (Hanushek, Kain, & Rivkin, 2004),

approximately 14-17% of teachers actually leave (Ingersoll, 2002), while the annual turnover rate for non-teaching occupations is around 11% (Ingersoll, 2002). Turnover rates are estimated to be substantially higher for beginning teachers, and for teachers in schools with a higher percentage of high-poverty and/or minority students (Ingersoll, 2003).

**The Negative Impact of High Rates of Teacher Turnover.** Teacher turnover should be a source of great concern to school administrators and educational policymakers (as well as to teacher-preparation institutions) not only due to the connection between quality teachers and student achievement, but also due to the investment of considerable resources, manpower, and planning is ultimately largely wasted on teachers who leave (Hall, Pearson, & Carroll, 1992). Research demonstrates the powerful influence that teachers have on student performance (Hattie, 2017) and shows that high rates of teacher turnover have a number of negative consequences for student achievement and school and district performance (Hirsch, 2004), while the cost of annual teacher turnover in America's schools is estimated to be around eight billion dollars annually (Kavanagh, 2016). In addition, high rates of teacher mobility create significant organizational challenges for every school (Ingersoll, 2003).

***Toxic School Climate and Culture.*** The consequences of teacher turnover are not limited to one classroom, but may permeate throughout the school and the school district, negatively affecting school climate and culture, and contributing to more teachers leaving, resulting in a cycle of turnover. Hall et al. (1992), citing Hoffman (1981), noted:

Teachers who are merely thinking about leaving the field are no less of a concern than those who actually carry out their intentions because the presence of disgruntled elements in a school system may well infect others and start a chain reaction. (p. 1)

When schools or school districts consistently have high rates of teacher turnover, this creates instability, which erodes school climate (Shields et al., 2001) making it challenging to build a positive school culture within schools (Carroll, 2007). Guin (2004) found that teacher turnover is higher in schools that teachers perceive to have a poor school climate, which illustrates the potential for a cycle of high teacher turnover.

***Loss of Teacher Expertise and Instructional Quality.*** When teachers leave their positions in schools, school districts, or leave the teaching profession entirely, schools lose their most valuable asset in influencing student learning. When teachers leave, they take with them a wealth of experience, instructional expertise, and institutional, cultural, and social knowledge that leaves a vacuum for schools to fill. For beginning teachers entering the profession, gains in instructional effectiveness tend to be most significant during the first and second years of teaching, with teachers tending to approach their peak level of effectiveness after five years of teaching (Rosenholtz, 1985). Unfortunately, teachers are most likely to leave their positions within their first few years in the profession, meaning that many teachers leave their positions before approaching peak effectiveness. These leaving teachers are then often replaced by new inexperienced teachers, leading to a cycle of inexperienced teachers and decreased student achievement in high turnover schools (Barnes, Crowe, & Schaefer, 2007; Rivkin et al., 2005). When schools are unable to find suitable candidates, they may rely on teachers that are not fully certified or endorsed. In 2016, more 100,000 classrooms were filled by underprepared teachers - a number is expected to rise in the years to come (Carver-Thomas & Darling-Hammond, 2017).

Instructional quality is adversely affected by teacher turnover by disrupting the school level curricular planning, collaboration, and implementation processes (Guin, 2004), and through a reduction in individual teacher quality and effectiveness (Milanowski & Odden, 2007). High teacher turnover negatively impacts the instructional opportunities of all students at a school, not just those with a new teacher, by disrupting school stability, collegial relationships, collaboration, and the accumulation of institutional knowledge (Ronfeldt, Loeb, & Wyckoff, 2013). In the 1987-1988 school year, the most common level of teaching experience for K-12 public school teachers was 14 years in the classroom. By the 2007-2008 school year, students were most likely to receive instruction from a teacher with just one or two years of experience (Carroll, 2010). Ultimately, these instructional dynamics result in decreased student achievement (Barnes et al., 2007; DeFeo & Tran, 2019; Rivkin et al., 2005).

***Inequitable Educational Opportunities for Students.*** Teacher turnover contributes to imbalances between schools and districts as teachers disproportionately leave certain schools and districts (which tend to be urban or rural with high percentages of poor and minority students) which leads to teacher shortages and the hiring of less qualified teachers. Schools frequently respond to teacher shortages by hiring available teachers who may be less experienced or qualified, by increasing class sizes, or by cutting student class offerings, all of which can negatively impact student learning. The body of research is clear that a high rate of teacher turnover negatively impacts student learning which places students who attend these schools at an educational disadvantage (Carver-Thomas & Darling-Hammond, 2017).

*Inefficient Use of Time and Financial Resources.* In addition to its impact on student learning, teacher turnover in PK-12 public education is costly - it costs public school districts a great deal of time (which has associated financial costs) and money (conservatively estimated to be on average \$7,500 per teacher) (Kavanagh, 2016). When teachers leave a school district, school districts must invest both time and money in searching for and interviewing new teaching candidates, in providing the onboarding orientation and professional development necessary for teachers to function and succeed in their school and school district, and in investing the time it takes for the enculturation of new teachers into the educational culture of the school and district. Schools and school districts with high rates of teacher turnover often need to offer the same types of teacher induction and professional development each year to ensure entering teachers are prepared, which can serve to limit professional development opportunities for more experienced teachers (Guin, 2004).

In addition to contributing to teacher shortages, high teacher turnover rates create extra financial costs for schools districts with cost estimates reaching \$20,000 or more for every teacher that leaves the district in some high turnover districts (Barnes et al., 2007). According to the National Commission on Teaching and America's Future (NCTAF, 2003), public school teacher turnover costs the nation over \$7.3 billion annually, which drains resources, diminishes teacher quality, and undermines the nation's ability to close the student achievement gap (Carroll, 2007).

### **Disproportional Impact of Teacher Turnover on Rural, Poor, and Diverse Schools**

Many factors influencing teacher shortages such as salaries, working conditions, and teacher attrition rates can vary significantly between regions of the nation, between

states, and between regions and school districts in states. These disparities can serve to create substantially different labor markets from state to state, and even one school district to the next (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). While there seems to be some disagreement in the literature whether urban or rural areas have higher turnover rates depending on how these are defined and measured, the majority of literature is in agreement that the teacher turnover rates in urban and rural areas are higher than in suburban areas (Cannon & Becker, 2015).

The rate of teacher attrition is often substantially higher in schools serving a high percentage of students in poverty and/or minority students than in schools serving primarily caucasian students located in more affluent areas (Ronfeldt et al., 2013). Many teachers voluntarily choose to leave schools that serve large percentages of poor, low-performing and non-white students, when other opportunities arise (Eppley, 2009; Mueller, Carr-Stewart, Steeves, & Marshall, 2013). Turnover rates are 70% higher for teachers in schools serving the most diverse students and nearly 50% higher for teachers in Title I schools, which serve more students from low-income families (Sutcher et al., 2016). On average, teachers in Title I schools have spent about two fewer years in their position than teachers in non-Title I schools, while teachers in highly diverse schools also tend to have less experience overall and have spent about three less years teaching at their current school (Carver-Thomas & Darling-Hammond, 2017).

### **Teacher Turnover and Teacher Shortages**

As school districts attempt to increase the quality of teachers entering and remaining in their schools, many are simultaneously faced with a teacher shortage (Thornton, 2004). Concern in the public has been expressed in recent years about a

potential national shortage of qualified teachers. Reports of teacher shortages in the media have been commonplace since 2015 when after multiple years of position cuts, many school districts began hiring again after state economies recovered. Since that time, many school districts have found difficulty in hiring teachers in areas such as mathematics, science, special education, and English Language Learning (ELL) (Sutcher et al., 2016). DeFeo and Tran (2019) observed:

The United States is in the midst of national teacher shortages that have been repeatedly characterized as a ‘crisis’ (Gunn, 2018; Picchi, 2018) or a ‘perfect storm’ of increased demand for teachers (Ingersoll, Merrill, & Stuckey, 2014; Ingersoll & Perda, 2010) concurrent with low enrollments in teacher education programs (Aragon, 2016; Ingersoll et al., 2014; King & Hampel, 2018; Sutcher, Darling-Hammond, & Carver-Thomas, 2016) and increased turnover rates. (Ingersoll et al., 2014)

The uneven availability and distribution of teachers, both in terms of the geographic location of available teachers and in the numbers of teachers trained in particular instructional fields, can create significant challenges for hard-to-staff school districts. Frequently, hard-to-staff schools include schools located in highly rural and urban areas, especially those schools serving mostly minority or low-income students (McClure & Reeves, 2004). A number of factors have attributed to teacher shortages in many areas including an increasing demand to hire new teachers (due to growing student populations and new hiring to replace previously eliminated positions due to a recovering economy), decreasing teacher supply (due to declining enrollment in teacher preparation programs and inadequate numbers of graduates in specific subject areas), and primarily, high rates of teacher attrition and turnover (Sutcher et al., 2016).

Over time, the perception of the teacher shortage problem has shifted from primarily an issue of teacher supply to more of a teacher retention issue (Ingersoll, 2001,

2003), and to a retention issue that is understood to be disproportionately more prominent in urban and rural schools with higher percentages of minority students and students in poverty. Ingersoll (2001, 2003), among others in the field, have referred to the impact of teacher turnover and retention on teacher shortages as the *revolving door effect*, where large numbers of teachers regularly cycle into and out of schools and the profession, leading to ongoing teacher shortages.

Increasing rates of teacher retention would reduce projected teacher shortages more than any other single factor (Sutcher et al., 2016). The major factor driving teacher shortages is teacher turnover, both from educators migrating to new teaching positions in other schools and from those leaving the teaching profession altogether, prior to retirement age (Sutcher et al., 2016). Rates of teacher attrition account for roughly 90% of the demand for new teachers (Sutcher et al., 2016). Sutcher et al. (2016) found that if teacher attrition could be reduced by half to 4% (similar to Ontario, Canada) this could virtually eliminate teacher shortages.

### **Relationship between Job Satisfaction and Teacher Retention and Turnover**

A critical aspect of school and school district development of high quality teaching faculties is understanding the factors associated with teacher retention and turnover. An employee's level of job satisfaction has been found to be a strong predictor of employee retention (Griffeth, Hom, & Gaertner, 2000), and more specific to the field of education, teacher job satisfaction has been linked to teacher retention and propensity to leave their teaching position and the teaching profession (Bobbitt, 1991; Bozeman, Scoggin, & Stuessy, 2013; Finster, 2013; Meek, 1998; Skaalvik & Skaalvik, 2011). Tan (2011), citing Crossman (2003), observed: "It is understood that satisfied workers will be



much more productive and will be retained within the organization for a longer period in comparison to displeased workers who will be less useful and will have a greater tendency to quit the job” (p.8). Woods and Weasmer (2002) found, “Teacher job satisfaction reduces attrition, enhances collegiality, improves job performance, and has an impact on student achievement” (p. 186). Bogler (2001) noted, “Teacher job satisfaction is a determinant of teacher commitment that must be present before the individual develops organizational commitment” (p. 666). Gardner (2010) observed that “job attributes, and teacher opinions and perceptions of the workplace have simultaneous direct effects on the retention, turnover, and attrition” of teachers (p. 119). Therefore, understanding teacher job satisfaction is essential to improving teacher retention and ensuring the long-term growth and success of schools (Ololube, 2006) and should be of primary concern to school administrators (Wildman, 2015).

While job perceptions may differ from objective reality, the perceptions that teachers have about their school work environment can be predictors of teacher turnover intention or teacher propensity to leave (Hall et al., 1992). Bozeman et al. (2013), citing Spear (2000) and Kearney (2008) noted that teacher satisfaction with their job, and the working conditions associated with their job, positively influences teacher retention and negatively influences teacher propensity to leave. In teacher retention studies, affective responses such as job satisfaction have been found to influence turnover intention (Bobbitt, 1991). Finster (2013), citing Lee (1987) and Griffeth et al. (2000) noted that turnover intention has also been found to be an indicator of actual employee turnover.

Policies designed to increase teacher retention are commonly based on the belief that teachers will remain in their positions when they are satisfied with their job and the

conditions associated with their job (Bozeman et al., 2013). The more practitioners understand about teacher job perceptions, and their origin and impact, the better equipped they will be in preparing teachers for a long and successful commitment to their chosen profession (Hall et al., 1992).

### **Strategic Approaches to Addressing Teacher Retention and Turnover**

The development of well-informed teacher retention strategies is critical for the strategic management of human capital for school districts, and in maximizing student, school, and district performance (Finster, 2013). The cycle of teacher retention and turnover is a complex, multi-stage process involving individual attitudes of teachers, intentions of teachers to leave, and actual teacher turnover, which is influenced by the conditions of the job market. If school districts can address the factors that contribute to teacher turnover, they can reduce the need to attract new teachers that are in short supply (Finster, 2013).

Borman and Dowling (2008) found that teacher turnover is significantly moderated by teacher working conditions and concluded that turnover is a problem that can be addressed through school policies and initiatives. Shann (1998), citing Anderman (1991) found: “a school culture . . . is related to teacher satisfaction and commitment and that principals' actions create distinct working environments within schools that are highly predictive of teacher satisfaction and commitment” (p. 67). Researchers such as Clewell, Darke, Davis-Googe, Forcier, and Manes (2000), McClure and Reeves (2004), and Sutcher et al. (2016) have provided policy recommendations based on comprehensive reviews of teacher retention literature in the field and emphasize the need to adopt a

flexible package of solutions to address the multiple aspects of teacher retention issues that can be specific to particular areas or school districts.

The most successful teacher retention initiatives are strategic, and are targeted to the specific needs of the teachers within the schools of the school district (McClure & Reeves, 2004). The foundation of any district level plan to address teacher retention is: (a) an understanding of the specific environment, culture, and context that teachers experience within the school, the school district, the community and its stakeholders within its region and the state; and (b) the need to gather appropriate, specific, school and district level data from teachers about their perceptions of their teaching experience (that influence teacher decisions to stay or leave).

“Teacher satisfaction is the pivotal link in the chain of education reform” (Shann, 1998, p. 68). “The educational craft succeeds or fails depending on the way teachers feel about their work, and how satisfied they are with it” (Bogler, 2001, p. 6). Teachers who have a propensity to leave their teaching positions can be distinguished from those who plan to stay "by the pattern of their work related attitudes, perceptions, and reactions" (Hall et al., 1992, p. 221). An examination of psychological and organizational factors may lead to better understanding of the antecedents of teacher turnover, allowing for the creation and implementation of strategic policies and initiatives aimed at reducing teacher turnover at the school or school district level (Finster, 2013). Kim and Loadman (1994) observed:

Administrators can gain valuable information about how their teachers evaluate their present teaching positions in order to determine teachers' expectations about the job and the work environment. Educational policy decision makers need to consider the importance of each aspect of the job to the individual rather than merely the level of overall job satisfaction. These results can help maximize

achievement of organizational and individual goals and ultimately improve education. (p. 10)

Data collected from teachers can be analyzed to identify trends which can inform practitioners in the development of a strategic approach to maximizing teacher retention and minimizing teacher propensity to leave (McClure & Reeves, 2004).

### **The Pragmatic Approach of this Study**

Studies that examine teacher retention and turnover often have different levels of focus. Studies at the macro level that examine the teacher workforce in its entirety often treat teacher turnover as attrition from the teaching profession (Murnane & Olsen, 1990). Much of the research approaches teacher turnover from an economic perspective and examines teacher turnover in terms of school and teacher demographic factors, as opposed to variables in schools that can be readily changed by practitioners through amending policy and practice (Finster, 2013). Ingersoll (2003) asserted that despite the tendency of researchers to focus on the macro level, teacher retention and turnover should be examined from the organizational perspective. Ingersoll (2003) noted:

it is necessary to examine them from the perspective of organizations - the schools and districts - where the processes happen and within which teachers work . . . by “bringing the organization back in” these school staffing problems are reframed from macro level issues involving macro level issues, involving inexorable societal demographic trends, to organizational issues involving manipulable and policy-amendable aspects of particular schools. (p. 5)

This study approaches teacher retention from an organizational perspective - at the school district level - focusing on factors that influence teacher job satisfaction and propensity to leave (and influence rates of teacher retention and turnover). The reasons for focusing on the school district level are practical in nature – the collection and analysis of data regarding teacher job satisfaction and self-indicated propensity to leave

will allow practitioners to strategically develop policies and practices aimed at maximizing teacher job satisfaction, minimizing teacher propensity to leave, and thereby increasing rates of teacher retention and decreasing rates of teacher turnover.

### **Teacher Retention and Turnover Research in the Rural Context**

Almost half (49%) of all the nation's public school districts are rural (McClure & Reeves, 2004). Ayers (2011) observed:

Rural students account for a large and growing segment of the school-age population, and their needs have too often been overlooked. Policymakers and the public must make rural education a priority if the nation as a whole is to make marked gains in student outcomes. (p. 1)

Rural school districts face unique challenges that must be tackled by using data and designing strategic policies that are specifically tailored to meet their needs (McClure & Reeves, 2004).

Many rural schools face the challenge of attracting and retaining highly qualified teachers. The retention challenge that rural schools face is present in both specific grade levels and in specific curriculum areas within schools. While there is some disagreement as to whether urban or rural schools experience more turnover depending on how these terms are defined, teachers have been found to be more likely to leave positions in rural schools than in suburban ones (DeFeo & Tran, 2019; Hammer, Hughes, McClure, Reeves, & Salgado, 2005; Miller, 2012; Monk, 2007). Gritz and Theobald (1996) found that teachers were more likely to leave schools located more than 30 miles from an urban area than teachers located within 30 miles of an urban area. Mont and Rees (1996) found that teachers working in schools with a lower percentage of students living in an urban area (including more rural schools) are more likely to leave their district than teachers working in other schools. DeFeo and Tran (2019), citing Dee and Goldhaber (2017) and

Loeb, Darling-Hammond, & Luczak (2005), found that rural schools receive fewer applicants and fewer qualified applicants for teacher positions, resulting in their spending a disproportionate amount of financial and human resources on teacher recruitment.

According to Miller (2012), the body of literature focusing specifically on rural teacher retention is much smaller and less rigorous in the analytic techniques employed than the body of literature on teacher retention. Since data concerning effective teacher retention practices in many rural school districts is lacking, many states and school districts are having difficulty ensuring that policy and practice in these areas are informed by research (McClure & Reeves, 2004). Many schools have introduced teacher recruitment and retention initiatives with minimal or varying levels of success. Prior ineffectiveness of many teacher retention programs, taken in conjunction with the increasing demand for highly qualified teachers, underscores the value of collecting school and district level data to inform educational policy and practice in rural areas (McClure & Reeves, 2004).

### **The Rural Alaskan Context of the Study**

Rural schools are not homogeneous, and the teacher retention challenges that they struggle with are varied between states and regions within states (Miller, 2012). The rural Alaskan context of this study varies considerably - geographically, historically, demographically, and culturally - from the states in the lower 48 (which vary from each other).

Alaska invests significant resources in educational instruction and teacher compensation. With an average per pupil expenditure of \$14,380 (and reaching even higher in many rural districts), Alaska spends more than twice as much on instruction per

student than 33 other states (the national average is \$6,400). With an average teacher salary of \$102,000, Alaska's rural school districts pay teachers significantly more than most school districts nationally (the national average is \$61,730). Yet despite these significant financial investments, the state as a whole, and particularly rural school districts experience significant teacher shortages (Leins, 2019).

Alaska is the least densely populated state in the United States, and while being more than twice the geographical size of the state of Texas, it has a population of less than the city of Austin. In 2015-2016, Alaska had 443 public schools, 13% of which (58 schools) had fewer than 25 students. Of the state's 54 school districts, one is urban (Anchorage), and four are mostly suburban (Fairbanks, Juneau, Matanuska-Susitna, Kenai Peninsula), and the remaining 50 school districts are wholly rural. Of the 54 school districts in the state of Alaska, 22 have schools enrolling less than 25 students. Thirty-two (32) of these rural school districts have between 100 and 999 students, and 5 school districts serve less than 100 students, with the smallest school district serving 13 students (DeFeo & Tran, 2019).

Alaska is home to the highest percentage of indigenous people in the United States. Alaska Natives constitute approximately 15% of the population and 23% of the school population. Almost 60% of Alaska Native students attend schools in communities located in rural areas traditionally inhabited by their ancestors, where the vast majority of students are Alaska Natives.

The setting of Alaska provides a unique and challenging context for education. The geographical, historical, political, cultural, and economic contexts of Alaska are unique enough when compared to other states that the 'Alaska variable' should be

accounted for in all education related decisions in the state (Barnhardt, 2001). Within Alaska, this study is framed in the specific remote rural context of the Bering Strait School District, located in Western Alaska in the Bering Strait region, which differs geographically, demographically, and culturally from the population of the state of Alaska at large.

### **The Bering Strait School District**

The Bering Strait School District is a public school district located in the Bering Strait region of rural Northwestern Alaska. The school district employs 224 teachers, the vast majority hailing from the lower 48 states, with 10 to 12 teachers being native to the geographical area in which they work (Alaska Department of Education, 2020; Leins, 2019). The Bering Strait School District serves approximately 1,900 Alaska Native students from three distinct cultural and linguistic groups of people of the Bering Strait Region: Inupiat (primarily residing in the northern part of the school district in proximity to the Bering Strait and on Diomedede Island), Central Yupik (primarily residing in the southern part of the school district in proximity to the southern shores of the Norton Sound), and Siberian Yupik (primarily residing on St. Lawrence Island) (see Figure 1). The students of the Bering Strait School District attend fifteen schools (K/PK-12) located in fifteen villages (Brevig Mission, Diomedede, Elim, Gambell, Golovin, Koyuk, Savoonga, Shaktoolik, Shishmaref, Saint Michael, Stebbins, Teller, Unalakleet, Wales, and White Mountain) in Western Alaska in the Norton Sound, Bering Strait Land Preserve, and Saint Lawrence Island regions (see Figure 1). The smallest school in the district serves 16 students, while the largest has 260 students enrolled (Leins, 2019).





Source: Norton Sound Health Corporation (2017)

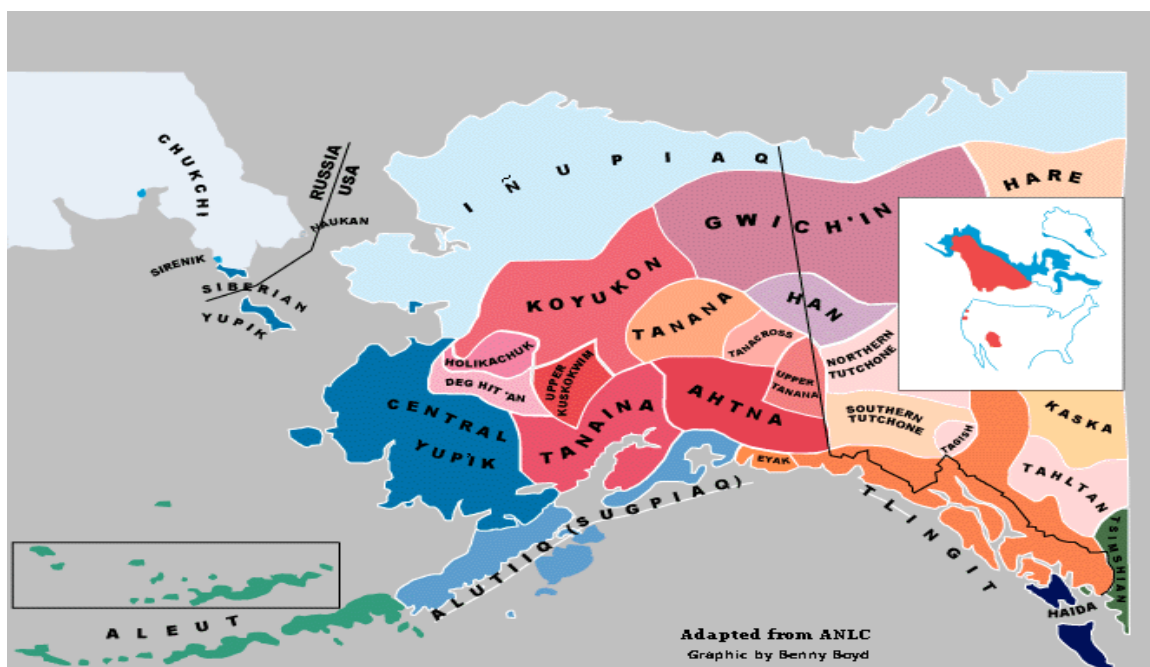
*Figure 1.* The geographical area and communities of the Bering Strait region.

The Bering Strait School District covers approximately 77,000 miles in Western Alaska (a land area approximately the size of the state of Nebraska) - from the Norton Sound in the southern part of the school district to the Chukchi Sea in the northern part of the school district, also including two schools on Saint Lawrence Island (Gambell, Savoonga), Sarichef Island (Shishmaref), and Little Diomed Island (Diomed) (Figure 2). Former Vice Presidential candidate Sarah Palin's much lampooned claim to be 'able to see Russia from her house' is not an exaggeration in the Bering Strait School District, where Russia is visible from four district schools with the naked eye. Villages (and thus the schools in the district) are separated by vast expanses of tundra and/or the sea and are off the 'road system' in Alaska— travel between villages (aside from some



the home of Central Yupik peoples who hunted caribou as well as sea mammals and fish; and St. Lawrence Island is home to the only Siberian Yupik peoples on American side of the Bering Strait who also relied upon the resources of the sea for survival. The central part of the region including Elim, Koyuk, Shaktoolik, and Unalakleet constitute a mixture of Inupiaq and Yupik cultures as Inupiaq peoples migrated south into the region and intermarried with the existing Yupik peoples about 160 years ago (see Figure 3).

Traditionally, prior to the establishment of permanent villages, the peoples of the region migrated throughout various areas in the region in search of game (Bering Straits Native Corporation, 2019).



Source: Barnhart (2001)

*Figure 3.* The cultural regions of Alaska.

Although there are many important differences between Alaska Native groups, all three Alaska Native groups of the Bering Strait region can be broadly classified as 'Eskimo' and share a set of values and beliefs that include: prioritization of familial and communal issues over individual issues, a prioritization of sharing versus amassing wealth, and an emphasis on the spiritual relationships and relatedness between individuals and the natural world (Barnhardt, 1994). Barnhardt (2001) observed:

The writings and oral histories of many Alaska Native people confirm that a discernible and distinctive world view revolving around values related to family, community, spirituality and the environment is not only central to the lives of many of Alaska's indigenous people, but is often in marked contrast with Western beliefs and practices. (para. 25)

Currently, the people of the region use cash to supplement and enhance subsistence lifestyle pursuits. A subsistence lifestyle of hunting, fishing, and gathering continues to be a primary aspect of cultural and community identities of the region. The introduction of cash currency into the local economy, the influence of Caucasian values, and the permanent establishment of communities, schools, churches, and health services has brought significant change to the region over the past 100 years (Bering Straits Native Corporation, 2019). In the Bering Strait region, the institution of public education is viewed through the lens of culture for many Alaska Natives.

### **Research Interest and the Background of the Researcher**

The researcher lived in the Bering Strait region of Alaska in the villages of Shishmaref and St. Michael, serving as a middle school teacher, high school teacher, assistant principal, and principal in the Bering Strait School District from 2009-2017. The experience of living and working in the unique cultural context of Inupiat and Yupik Alaska Native villages, as well as experiencing the unique challenges of life in the

Alaskan bush, was personally and professionally formative for the researcher. The images of the vast expanse of tundra, the blinding snow, bush plane flights, walks on the frozen sea, seal, caribou, walrus, polar bear, dog sled races, pickled muktuk, dumping a honey bucket on a windy day, knocks at the door leading to admiring ivory and whale bone carvings, drumming and Eskimo dancing, and the beaming smiles and welcoming hearts of the children and people of the region will forever be etched in the mind of the researcher.

The researcher first became aware of the unique cultural and educational contexts of rural Alaska when attending graduate school at the University of Virginia where a faculty member shared her experiences of serving as an administrator in the Alaskan bush. Several years later, the researcher attended an Alaska Teacher Placement job fair in Bloomington, Minnesota that hosted school districts from across the state of Alaska and secured a teaching position in the Bering Strait School District - with a school placement in Shishmaref, Alaska - becoming one of five new teachers on a staff of twenty teachers at the school. Seven years later, after serving as an assistant principal in the village of St. Michael in the southern end of the school district (225 miles to the south), when the researcher returned to Shishmaref to serve as principal of Shishmaref School, only three of the teachers at the school remained on the staff from when the researcher first entered the school district as a teacher 7 years earlier. Later, when an opportunity to serve as superintendent in a school district in Nebraska arose, it was the researcher's turn to leave the Bering Strait School District, and the state of Alaska, with a lifetime full of memories.

Now, more than three years removed from the end of an Alaskan adventure, the experiences seem at once like another lifetime and ever-present as they have forever influenced the perspective of the researcher. When reflecting upon this researcher's arc of experience in bush Alaska - rising from a rookie teacher, to veteran in the district - in only eight years of service (nationally, a below average tenure for a teacher in most school districts), the profound impact that teacher retention and turnover has on the school district is apparent.

As demonstrated through the aforementioned experience of the researcher, there are many positives that come from new educators entering the Bering Strait School District, including the constant stream of new backgrounds, perspectives, ideas, and experiences that are shared and which can be drawn upon by others in the school district. There are many opportunities for new teachers to become involved, seek professional development opportunities, assume new roles, and grow personally and professionally into leaders in the school district.

Conversely, turnover in the school district creates many challenges as great human and financial investments must be made to recruit new teachers, train new teachers, acclimatize new teachers to their geographical and cultural surroundings, and help new teachers to develop relationships with students, parents, and the community that will allow them to be successful. Every year, there is a wealth of educational, cultural, and community knowledge and expertise that leaves the school district (and predominantly, the state of Alaska), leaving their successors to attempt to fill the void while at the same time themselves adjusting to a new state, lifestyle, culture, and in many cases, profession.

It is the intent of this researcher, that through this study, teacher job satisfaction, retention, and turnover can better be understood. It is intended that the data and results of this study will be available to inform policy and practice, potentially leading to increased teacher job satisfaction and the retention of more teachers and their associated knowledge, experience, and expertise. It is also intended that this study will contribute to the body of theoretical research on teacher job satisfaction, propensity to leave, and teacher retention in rural Alaska and inform future studies that may be undertaken.

### **Selection of the Job Satisfaction and Propensity to Leave Constructs**

In the selection of the constructs to be utilized (job-related satisfaction and propensity to leave) for an investigation of the factors related to teacher retention and turnover in the Bering Strait School District, other constructs (including job-related motivation, involvement, and commitment) were considered and rejected. The decision to examine the job satisfaction construct in conjunction with the propensity to leave construct was a pragmatic decision based on the belief that these constructs would allow for the organization of a more accurate, affordable, less time-consuming, and more practice-relevant study than the alternatives.

The construct of job satisfaction is an affective reaction of an individual to an individual's work situation. Job satisfaction can be understood as an overall feeling related to one's position or career or examined in terms of specific elements of the job (e.g., salary, interpersonal relationships, administrative policies and practices) and it can be related to outcomes, such as teacher instruction, student achievement, and of particular relevance to this study, teacher retention and turnover, of which it has been found to be a strong predictor (NCES, 1997).

Job-related motivation, involvement, and commitment have frequently been investigated through questioning employees about varying types of experiences. In many situations, motivation, involvement, commitment cannot as readily be measured when compared to job satisfaction. The construct of job satisfaction is more closely related to affect and present events and feelings than the aforementioned constructs (which are less-immediate, conjectural, and more open to subjectivity on the part of the respondent). While recognizing the difference between job satisfaction and other constructs, many studies choose to focus on job satisfaction due to the belief that job satisfaction helps to account for these factors and that job satisfaction is a more easily measured construct (Crehan, 2016).

A similar rationale was applied by this researcher in the decision to utilize the construct of job satisfaction in this study. It is believed by the researcher that perceptions of job satisfaction would be more easily and accurately identified by teacher participants than would be sources of other constructs (which would be less immediate to the respondent, more speculative in nature, and require more time for participants to think in order to accurately report responses). It is further believed that perceptions of job satisfaction would be more readily measured and analyzed than other constructs (which could be more variable in nature, and more conducive to qualitative interviews, which would be time and cost prohibitive for this researcher in the rural Alaska context). Additionally, it is believed that due to the practice-oriented nature and long track record of application of the Herzberg framework in educational studies, a study of teachers employing this model of job satisfaction will allow for the presentation of findings in a



format that are comprehensible to practitioners and conducive to planning future policies and practices aimed at increasing rates of teacher retention.

Propensity to leave can be defined as the likelihood of an employee to voluntarily leave their position. The construct of self-indicated propensity to leave (turnover intention) was selected for use in this study because of all available constructs it is the most immediately connected to actual employee turnover, and has been found to be the best predictor of actual employee turnover (Finster, 2013). While other constructs are undoubtedly related to employee turnover, they are not as closely related to actual employee turnover as employee indicated propensity to leave, and as such, do not as closely approximate actual employee turnover. Actual employee turnover was not examined in this study because this would necessitate the identification of individual participants, as well as the association of individual participants with their responses (which potentially would pose obstacles for the participation rate of teachers and the institutional approval of the study).

### **Rationale for the Rejection of Other Constructs and Theoretical Frameworks**

It is acknowledged that there are multiple job-related constructs (e.g., motivation, morale, involvement, efficacy, organizational commitment, economic opportunity) in various types of management and psychological theories (e.g., need fulfillment theory, equity theory, expectancy theory, reinforcement theory, range of affect theory, human capital theory, image theory, dispositional theory, job characteristics theory) that may influence the decision-making involved in voluntary employee turnover and that are valid for application in research studies (Holtom, Mitchell, Lee, & Eberly, 2008). Other constructs and models that have been used to explain voluntary employee turnover in

other studies were not selected for the purposes of this study due to a variety of factors: (a) the factors that they examined were less relevant in the context of the field of education when examining teacher job retention and turnover; (b) their implications for influencing practical, amendable policies and practices in education were less advantageous; (c) there was less precedent for their application in research in the field of education; (d) they were found to be less practical to administer and utilize within the context of this study; or (e) they did not as easily lend themselves to examining rural Alaska job factors that may impact teacher retention and turnover.

### **The Theoretical Framework for the Study**

Theory is heuristic - it guides and stimulates the further development of knowledge. Aliviano and Taraya (2014) provided four functions for theory: (a) to provide general explanation for phenomena - e.g., helping to explain the structure and dynamics of organizations; (b) to guide empirical research - providing the conceptual underpinnings for the development of hypotheses; (c) to provide for cumulative research - allowing for the development of knowledge by building upon earlier research; and (d) to guide practical decisions - allowing practitioners to interpret the complexities of reality to provide for strategic and rational action.

In this study, the motivation-hygiene theory (Herzberg, 1968/1987; Herzberg et al., 1959) will be used as a theoretical lens to frame the determinants of teacher job satisfaction and dissatisfaction utilized by the questionnaire survey instrument in this quantitative study. A propensity to leave scale (Murray, 1998) will be used to measure teacher indicated propensity to leave their school, school district, and the teaching profession on the questionnaire survey instrument. The use of motivation hygiene factors

(Herzberg et al., 1959) in conjunction with a propensity to leave (Murray, 1998) will allow for the relationship between determinants of job satisfaction and dissatisfaction and employee indicated propensity to leave can be examined.

### **The Use of the Motivation-Hygiene Theory to Frame Determinants of Job**

**Satisfaction.** Job satisfaction is largely driven by an individual's subjective judgement of a job. Since in many instances it is impractical to study each individual employee in large organizations due to time and monetary constraints, studies of job satisfaction often utilize measures, indicators, or determinants that have been found to frequently influence job satisfaction in typical individuals (Grady, 1984; Juozaitiene & Simon, 2011).

In this study, the construct of job satisfaction will be treated as a latent factor with determinant indicator variables. Determinants of job satisfaction were identified in Frederick Herzberg's (Herzberg et al., 1959) motivation-hygiene theory (also known as two-factor theory or dual factor theory) and will frame the items on the questionnaire survey instrument related to job satisfaction (the indicator variables of job satisfaction).

Herzberg's motivation and hygiene factors have been utilized to frame the determinants of job satisfaction in a large number of studies (Grady, 1984). The results of over 200 studies by Herzberg (1974), his colleagues, and others have contributed to a body of research supporting the validity of Herzberg's motivation-hygiene theory (Katt & Condy, 2009). Herzberg's theory has been replicated, tested, and applied in numerous studies around the world, including many studies undertaken in educational settings. Herzberg et al.'s (1959) motivation-hygiene theory has frequently been used to study the job satisfaction of educators (Finster, 2013). Bogler (2001) observed: "Most research on teacher job satisfaction is rooted in the pioneering work of Herzberg, Mausner, and

Snyderman (1959) who identified the satisfying and dissatisfying factors” (p. 665).

Foreman (2019) observed that “Because Herzberg’s theory offers a reasonable platform for categorizing both intrinsic and extrinsic factors of motivation it makes sense that survey instruments dealing with the topic of worker motivation would utilize his theory” (p. 27).

In higher education, some of the recent studies utilizing Herzberg’s motivation-hygiene theory were Schulz (2009), Boord (2010), Gullickson (2011); Waltman, Bergom, Hollenshead, Miller, and August (2012); and Stech (2014). In PK-12 education, numerous studies utilizing Herzberg’s framework have been undertaken. Foreman (2019) observed, “Herzberg’s concepts of intrinsic and extrinsic motivation provide a platform for categorizing motivational factors and continue to be used in studies related to teacher motivation.” Some of the most recent studies in PK-12 education utilizing the motivation-hygiene theory include: Sullivan (1981); Medved (1982); Friesen, Holdaway, and Rice (1983); Young and Davis (1983); Goodson (1984); Cates (1984); Helms (1984); Tutor (1986); Taylor (1986); King, Warren, and Peart (1988); Pederson (1989); Rasmussen (1990); Caldwell (1992); Phelps (1995); Dvorak and Phillips (2001); Farthing (2006); Brown and Hughes (2008); Kaski (2009); Greene, Jensen, Madden, & Maloon (2011); Juozaitiene & Simon (2011); James (2013); Islam & Ali (2013); Boyle (2014); Waga and Simatwa (2014); Chu and Kuo (2015); Atalic, Can, and Canturk (2016); Giertz (2016); and Foreman (2019).

The broad applicability of the motivation-hygiene factors developed by Herzberg to the PK-12 school setting, the numerous examples of Herzberg’s motivation-hygiene theory being applied in educational settings, the infrequency of which alternative theories

have been successfully utilized in similar applied contexts, and the overall suitability of Herzberg's motivation-hygiene theory to incorporate specific rural Alaska job factors identified in the literature (assigned/available teacher housing, and rural village amenities, and village connectedness) were contributing factors in the selection of the motivation-hygiene theory to frame determinants of teacher satisfaction for the questionnaire survey instrument utilized in this study.

While there has been criticism of Herzberg's motivation-hygiene theory, much of this appears to center on whether or not motivator and hygiene factors should be viewed to exist on separate linear scales (as Herzberg asserted), not on whether these factors actually influence employee job satisfaction and dissatisfaction. Herzberg's motivation-hygiene theory has been cited in many organizational texts and articles, applied in numerous educational settings, validated in numerous studies, and it is highly credible and generally well regarded (Hui & Tsui, 2015; Katt & Condly, 2009).

***Herzberg's Motivation-Hygiene Theory of Job Satisfaction.*** Dr. Frederick Herzberg (1923-2000) was among the first to research the factors in an employee's work environment that lead to satisfaction and dissatisfaction. Herzberg believed that the factors that an employee finds important about his or her position can influence employee job satisfaction or dissatisfaction (and by extension, employee retention, motivation, performance, morale, mental health, and interpersonal relationships) (Herzberg, 1968/1987). Through using the critical incidents technique, Herzberg identified key factors that lead to the satisfaction and dissatisfaction of employees holding a job.

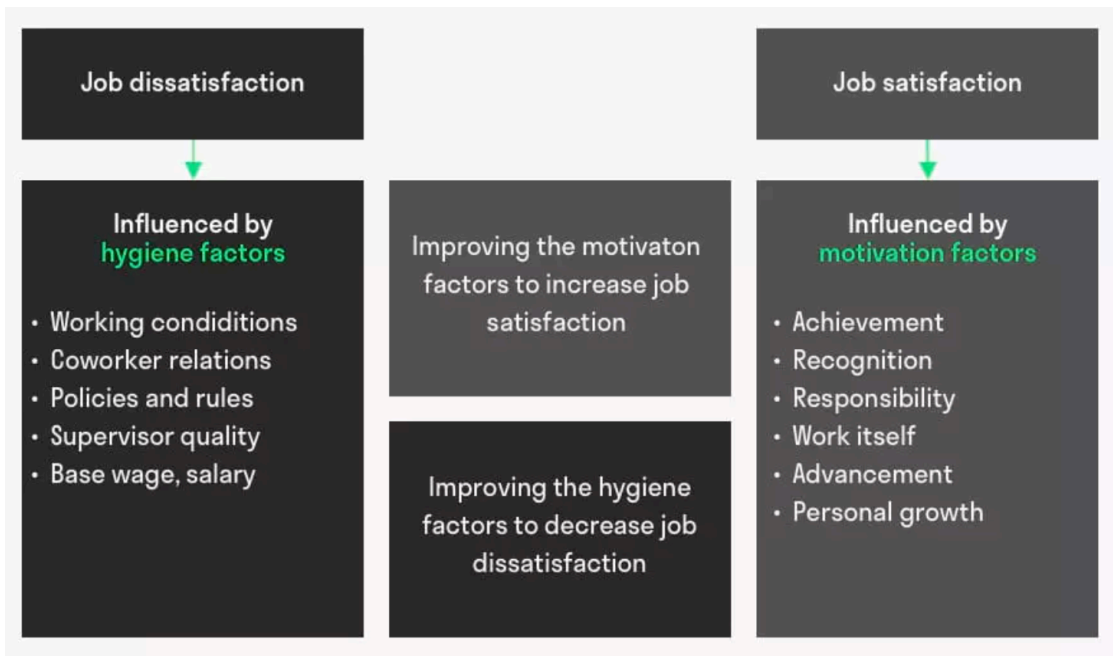
Herzberg found that employees were satisfied with desirable aspects of what they do. He termed job related causes of satisfaction to be *motivators* (also referred to as

*satisfiers* - thus he believed that employee job satisfaction was fundamentally linked to employee motivation). Motivators are intrinsic factors that are associated with the content of the job, or what the person does on the job. Common motivators include recognition, achievement, the work itself, responsibility, and advancement. When applied to teachers, examples of motivators would be effectively teaching students and seeing students grow as a result of teacher efforts.

Herzberg found that employees were dissatisfied with undesirable environments, which he described through the use of *hygienes*. *Hygienes* are extrinsic factors that surround a job, or are related to a job, but are not a direct part of the job. Herzberg theorized that insufficient maintenance of hygiene factors will lead to job-related dissatisfaction and inhibit job-related satisfaction. When hygiene factors are not adequately maintained/or when motivators are not present, workers will be unsatisfied with their work and may either be unmotivated to reach their potential or may seek to change their employment environment either by leaving their job or by leaving their profession. Therefore, *hygienes* must be maintained for workers to not be dissatisfied, and to allow for the possibility of satisfaction through motivators, but *hygienes* do not directly contribute to job satisfaction. Hygiene factors include supervision, interpersonal relations, physical working conditions, salary, administrative policies and practices, benefits, and job security. When applied to teachers, examples of *hygienes* would include teacher compensation and classroom facilities.

The motivation-hygiene theory suggests that organizations should focus on ameliorating or eliminating dissatisfying conditions, while also facilitating conditions

where motivators can be realized in order to improve the job related satisfaction of their employees (see Figure 4).



Source: Kuijk (2018).

*Figure 4.* Job satisfaction and dissatisfaction in the motivation-hygiene theory

Herzberg believed that every job should be examined to determine how it could be improved to become more satisfying to the worker doing the job (Dartey-Baah, 2011). Herzberg (1968/1987) asserted that managers of organizations should seek to minimize employee dissatisfaction and encourage motivating factors in order to enhance worker job satisfaction (and by extension, positively influence worker retention, motivation, and productivity). More than 50 years later, researchers continue to use and expand on Herzberg's motivation-hygiene theory to understand the relationship between employee

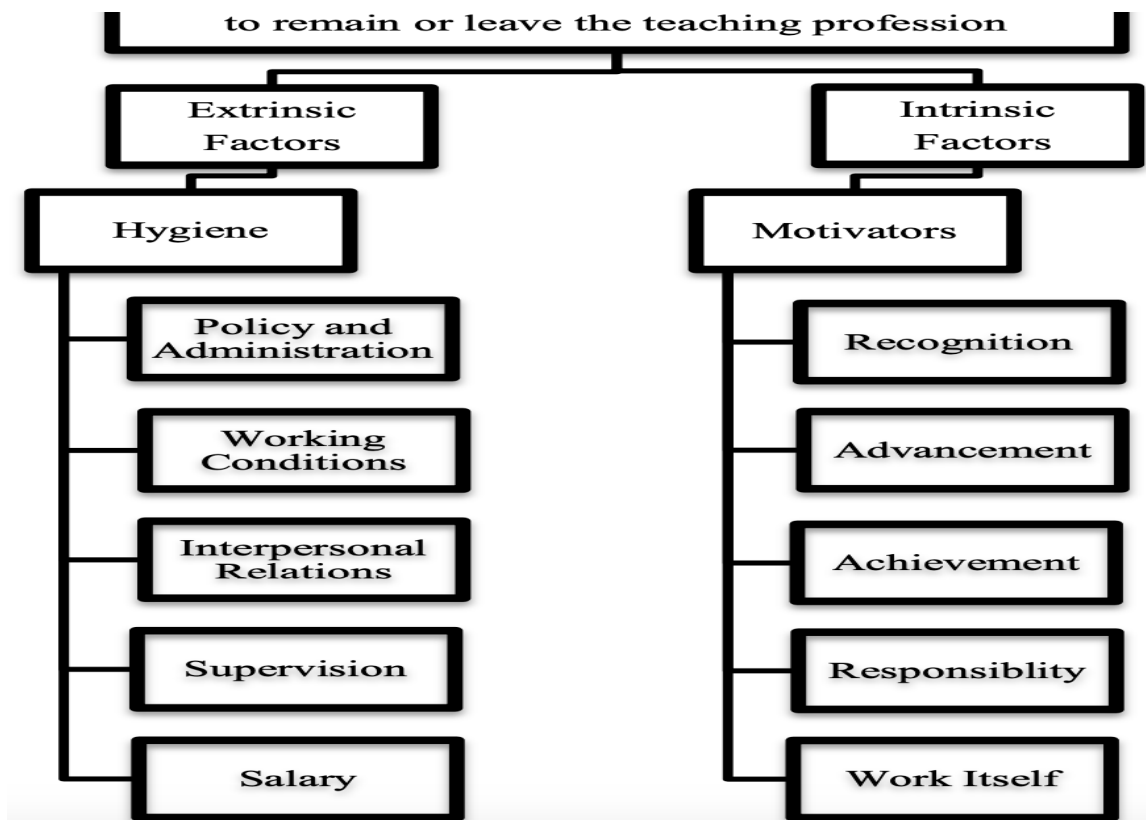
satisfaction and dissatisfaction, and motivation, as these factors are imperative to the success of organizations (Boord, 2010).

*The Applicability of the Motivation-Hygiene Theory to the Study.* Herzberg's motivation-hygiene theory is a practical theory based on specific identifiable factors that can be influenced by managers or employers once aware of the need (Katt & Condly, 2009). Herzberg believed that it is possible to increase the retention, morale, motivation, and productivity of the workers of an organization through the implementation of strategic management initiatives aimed at improving employee attitudes towards their work (Finster, 2013).

This study seeks to capture this same pragmatic spirit advanced by Herzberg. It is hoped that through an analysis of the teacher data that is collected, the results of this study can inform educational practitioners in the development of policies and practices aimed at maximizing teacher job satisfaction, minimizing teacher propensity to leave, and thereby increasing rates of teacher retention (as well as potentially reaping other associated benefits such as increased teacher motivation, productivity, and increased student achievement). An example of the relationship between motivation-hygiene factors and teacher decisions to remain or leave their positions is depicted (see Figure 5):

Herzberg's motivation-hygiene theory allows for the collection of data on factors that educational practitioners can influence through policy and practice, while also allowing for the flexibility necessary for the inclusion of rural Alaska specific factors that the literature indicates may influence Alaska teacher job satisfaction/dissatisfaction - assigned/available teacher housing, rural village amenities, and village connectedness.





Source: James (2013)

*Figure 5.* Relationship between motivation-hygiene factors and teacher decisions to remain or leave.

In the context of this study, rural Alaska job factors - assigned/available teacher housing, rural village amenities, and village (dis)connectedness - have been identified from the literature as potential factors leading to teacher dissatisfaction. The researcher has identified these factors as possible hygiene factors for rural Alaska teachers (as consistent Herzberg's motivation-hygiene theory) due to these factors being indirectly connected to the job itself, being extrinsic in nature, and being more likely to contribute to dissatisfaction if inadequate than likely to contribute to job satisfaction if present. In this respect, they are consistent with Herzberg's other hygiene factors. On the survey

instrument, questionnaire items will ask teachers their level of satisfaction or dissatisfaction with these factors (in addition to traditional motivation-hygiene factors) to determine their level of influence on teacher-indicated overall job satisfaction and teacher-indicated propensity to leave.

Herzberg's motivation-hygiene theory has been used to test the satisfaction of different groups in a variety of employment settings, including educational work settings. An employee's level of job satisfaction has been found to be a strong predictor of employee retention (Griffeth et al., 2000), and teacher job satisfaction has been linked to teacher retention and propensity to leave (Bobbitt, 1991; Finster, 2013; Meek, 1998; Skaalvik & Skaalvik, 2011). Given the lack of specific studies on teacher job satisfaction and teacher propensity to leave in rural Alaska, a study examining the relationship between these factors will inform practice and contribute to the body of research.

**The Use of a Propensity to Leave to Frame Teacher Mobility.** This study will examine the self-indicated propensity of teachers to leave their positions in relation to elements of job satisfaction. *Propensity to leave* in this study is defined as the likelihood of teachers leaving their job by personal choice. Prior studies in the field of education have examined the relationship between job satisfaction and propensity to leave using motivation-hygiene factors (e.g., Murray, 1998; Murray, Murray, & Summar, 2000; Stech, 2014).

The questionnaire survey instrument utilizes motivation-hygiene factors (Herzberg et al., 1959) to frame determinants of job satisfaction/dissatisfaction and are used in conjunction with a propensity to leave scale (Murray, 1998) to frame teacher indicated propensity to leave, with questionnaire items asking teachers about their

propensity to leave their current school, current school district, and the teaching profession. Questionnaire items asking teachers about their propensity to leave will allow for the examination of the relationship between elements of teacher job satisfaction/dissatisfaction and teacher indicated propensity to leave.

### **Statement of the Research Problem**

“Many reasons have been cited to explain the high attrition rate, but overall, many teachers entered the profession perceiving the job would be intrinsically rewarding only to find themselves unfulfilled and dissatisfied” (Patrick, 2007, p.16). Thus, the importance of fostering teacher satisfaction in America’s classrooms becomes of critical importance in building teacher longevity in schools (Patrick, 2007). “Many research studies have questioned whether certain job factors and rewards result in motivational effects or lead to dissatisfaction in the workplace. But the actual predictors of satisfaction, however, have received little research attention” (Kim & Loadman, 1994, p. 4).

To help keep qualified teachers, and thereby minimize the loss of time, money, and instructional experience and expertise that is associated with teacher turnover, to the degree that is possible, school districts should learn about the factors that contribute to the satisfaction and dissatisfaction of their teachers and how these factors contribute to teacher propensity to leave their positions so that districts can strategically allocate their financial and human resources to maximize teacher retention and minimize teacher turnover. By keeping qualified employees satisfied, the likelihood of turnover diminishes (Herzberg, 1968/1987). Learning the factors that contribute to teacher job satisfaction and dissatisfaction and teacher propensity to leave can be useful to educational

practitioners as they seek to craft policies and provide supports that create the most favorable conditions to promote teacher retention and minimize teacher turnover.

### **Purpose Statement**

The purpose of this quantitative study is to determine the factors (motivation-hygiene factors, rural Alaska teacher job factors, and teacher demographic factors) that contribute to job related satisfaction and dissatisfaction for PK-12 teachers in the Bering Strait School District, and to examine the relationship between these factors and teacher indicated propensity to leave, which may inform practitioners in the development of policies and practices aimed at maximizing teacher retention and minimizing teacher turnover. Notice will be taken of the extent to which the teacher data that is collected supports or refutes the bifurcated or dualistic nature of Herzberg's theory.

### **Research Questions**

The following are research questions that the study seeks to address:

**Research Question 1 (RQ1).** *How do teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors, hygiene factors, and rural Alaska job factors? Do the satisfaction/dissatisfaction ratings according to these groups significantly differ?*

#### **RQ1 Sub-Questions (SQ).**

*RQ1-SQ1 How do teachers in the Bering Strait School District rate their satisfaction or dissatisfaction with respect to motivator factors, hygiene factors, and rural Alaska job factors?*

*RQ1-SQ2 Do the categories of motivator factors, hygiene factors, and rural Alaska job factors significantly differ in levels of teacher reported satisfaction/dissatisfaction?*

Descriptive statistics were utilized to answer RQ1-SQ1. The categorical data for teacher responses was coded by assigning numeric codes to questionnaire items 1-18 (Herzberg motivation-hygiene factors) and 19-21 (rural Alaska job factors). A codebook was then created with a frequency table. 21 mean scores were calculated to describe teacher levels of satisfaction/dissatisfaction for each of the motivator factors, hygiene factors, and rural Alaska job factors. Category mean scores for motivator factors, hygiene factors, and rural Alaska job factors were calculated.

Repeated measures ANOVA was used to answer RQ1-SQ2. A repeated measures ANOVA test was used to determine if the categories of motivator factors, hygiene factors, and rural Alaska job factors significantly differed.

**Research Question 2 (RQ2).** *Is a dual factor model of job satisfaction (as Herzberg theorized) supported by how teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors and hygiene factors?*

Descriptive Statistics were utilized to answer research question 2. 18 mean scores were calculated to describe teacher levels of satisfaction/dissatisfaction for each motivator factor and hygiene factor, and category mean scores were calculated for motivator factors and hygiene factors. These mean scores were used to determine if motivator factors principally contribute to satisfaction, and hygiene factors principally contribute to dissatisfaction, as Herzberg theorized.

**Research Question 3 (RQ3).** *How do teachers in the Bering Strait School District rate their overall satisfaction/dissatisfaction with their teaching position?*

Descriptive statistics were utilized to answer research question 3. The categorical data for teacher responses was coded by assigning numeric codes to questionnaire item 22. A codebook was then created with a frequency table. Cross tabulations were performed with respect to teacher demographic variables. Through this analysis, the teacher indicated overall satisfaction/dissatisfaction level was determined.

**Research Question 4 (RQ4).** *How do teachers in the Bering Strait School District rate their propensity to leave the school, school district, and the teaching profession?*

Descriptive statistics were utilized to answer research question 4. The categorical data for teacher responses was coded by assigning numeric codes to questionnaire items 24-26. A codebook was then created with a frequency table. Cross tabulations were performed with respect to teacher demographic variables. Through this analysis, teacher propensity to leave the school, the school district, and the teaching profession were determined.

**Research Question 5 (RQ5).** *With respect to teacher demographic factors, do each of the following three factors - motivator factors, hygiene factors, and rural Alaska job factors - predict teacher reported overall job satisfaction/dissatisfaction in the Bering Strait School District?*

***RQ5 Sub-Questions (SQ).***

*RQ5-SQ1 Do motivator factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.*

*RQ5-SQ2 Do hygiene factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.*

*RQ5-SQ3 Do rural Alaska job factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.*

Sequential multiple regression analysis was utilized to answer research question 5. Teacher demographic factors (questionnaire items 27-31), motivator factors (questionnaire items: 1, 3, 5, 12, 13, 18), hygiene factors (questionnaire items: 2, 4, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17), and rural Alaska job factors (questionnaire items 19-21) were used to predict teacher reported overall job satisfaction (questionnaire item 22). Due to the number of variables, three separate sequential multiple regression analyses were utilized to answer the three sub-questions of RQ5.

**Research Question 6 (RQ6).** *With respect to teacher demographic factors, do each of the following four factors: motivator factors, hygiene factors, rural Alaska job factors, and teacher reported overall job satisfaction/dissatisfaction - predict teacher reported propensity to leave with respect to each of three leaving outcomes: leaving the school, leaving the school district, and leaving the teaching profession?*

***Sub-Questions.***

- RQ6-SQ1 Do motivator factors predict teacher reported propensity to leave the school?*
- RQ6-SQ2 Do hygiene factors predict teacher reported propensity to leave the school?*
- RQ6-SQ3 Do rural Alaska job factors predict teacher reported propensity to leave the school?*
- RQ6-SQ4 Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the school?*
- RQ6-SQ5 Do motivator factors predict teacher reported propensity to leave the school district?*
- RQ6-SQ6 Do hygiene factors predict teacher reported propensity to leave the school district?*
- RQ6-SQ7 Do rural Alaska job factors predict teacher reported propensity to leave the school district?*
- RQ6-SQ8 Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the school district?*
- RQ6-SQ9 Do motivator factors predict teacher reported propensity to leave the teaching profession?*
- RQ6-SQ10 Do hygiene factors predict teacher reported propensity to leave the teaching profession?*
- RQ6-SQ11 Do rural Alaska job factors predict teacher reported propensity to leave the teaching profession?*



*RQ6-SQ12 Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the teaching profession?*

Sequential multiple regression analysis was utilized to answer research question 6. Teacher demographic factors (questionnaire items 27-32), motivator factors (questionnaire items: 1, 3, 5, 12, 13, 18), hygiene factors (questionnaire items: 2, 4, 6, 7, 8, 10, 11, 14, 15, 16, 17), rural Alaska job factors (questionnaire items 19-21), and overall job satisfaction/dissatisfaction (questionnaire item 22) were used to predict teacher reported propensity to leave the school (questionnaire item 24), the school district (questionnaire item 25), and the teaching profession (questionnaire item 26). Due to the number of variables, twelve separate sequential multiple regression analyses were utilized to answer the 12 sub-questions of RQ6.

### **The Survey Instrument for Data Collection**

Teachers in the Bering Strait School District received an email invitation to participate in the online quantitative questionnaire survey (covered in greater detail in the methodology in Chapter III). The quantitative questionnaire survey instrument used in this study utilizes a Likert scale. The opening questionnaire items ask teachers to rate the extent to which they are satisfied or dissatisfied with each of the motivation-hygiene factors, and the extent to which they are satisfied or dissatisfied with job-related rural Alaska job factors identified in the literature (assigned/available teacher housing, rural village amenities, and village connectedness). Following these items, a questionnaire item asks teachers to rate their overall job-related satisfaction or dissatisfaction. The next set of questionnaire items ask teachers to rate their propensity to leave their school, their

school district, and the teaching profession. The remaining questionnaire items ask teachers to report demographic data (gender, age, education level, years of service, significant other status, grade-level taught). The data that was collected by the quantitative questionnaire survey instrument was used to examine the relationship between teacher job satisfaction, teacher indicated propensity to leave, and teacher demographic factors.

### **Definition of Terms**

The definitions for the following terms that are frequently used in the study can be found in Appendix A: affect, attrition, Bering Strait School District, bush Alaska, remote rural, hygiene factors, intention to leave, Inupiat, Inupiaq, job satisfaction, migration, motivation-hygiene theory, motivator factors, motivation, new teacher, propensity to leave, retirement, road system, subsistence, teacher, tenured teacher, transfer, Yupik.

### **Assumptions of the Study**

Assumptions in the context of an academic study are the constructs that the researcher accepts as true without a concrete proof (Ellis & Levy, 2009). Researchers rest their studies on assumptions that must be shared with the readers of the study in order to gain a full understanding of the research as well as its applicability and limitations.

The assumptions of this study include:

1. This study makes the ontological assumption that reality is objective, observable, and measurable, and that data gathered, analyzed, and presented will be perceived similarly by readers of the study. This assumption is common to quantitative studies.

2. This study makes the epistemological assumption that the knower (the researcher), and the known (the participants and data collected) are independent from each other. How the researcher feels is not relevant for collection and analysis of objective data. This assumption is common to quantitative studies.
3. This study makes the axiological assumption that the researcher's values or viewpoint will not interfere with the collection and analysis of objective data. This assumption is common to quantitative studies.
4. This study makes the causal and temporal assumption that causes and effects are actual and related - that causes that are correctly perceived by the human senses result in effects correctly perceived by the human senses. This assumption is common to quantitative studies.
5. It is assumed that the participants in the study (teachers in the Bering Strait School District) have the level of cognitive ability necessary to understand the directions and the items asked in order to complete the questionnaire
6. It is assumed that the participants (teachers) in the study will answer the questions honestly to the best of their ability
7. It is assumed that the data collecting and data recording procedures will be accurately performed
8. It is assumed that Herzberg's motivation-hygiene theory provides a valid theoretical framework for the investigation of job satisfaction and dissatisfaction since it has been utilized in numerous studies.

9. It is assumed that self-indicated propensity to leave scales are a valid measure of employee intent to leave since they have been utilized in numerous studies.
10. It is assumed to be in the practical interest of an organization (school district) to have access to data about the levels of employee job satisfaction/dissatisfaction and employee self-reported propensity to leave. It is assumed that if the organization has access to this data, it can attempt to implement strategic policies and practices aimed at maximizing levels of job satisfaction, and minimizing propensity to leave, thereby potentially increasing rates of employee retention, and decreasing rates of employee turnover.

### **Delimitations of the Study**

Delimitations are “factors, constructs, and/or variables that were intentionally left out of the study” (Ellis & Levy, 2009, p. 332). The following are the delimitations of this study:

1. This study was restricted to the PK-12 public school teachers in the Bering Strait School District that were employed in the 2019-2020 school year.
2. This study focuses on teacher job satisfaction and its relationship with teacher-indicated propensity to leave. In doing so, it excludes other theoretical constructs that have been shown to influence employee turnover (e.g., morale, motivation, efficacy, personality traits, organizational performance, and temporal changes). Job satisfaction has been chosen as the focus of this study because there is a body of research that demonstrates a relationship between job satisfaction and propensity to leave, and there are

elements of a job that employers and employees have control over in the workplace, which allows for the results of the study to potentially practically inform policy and practice. Many factors may potentially influence job satisfaction and the propensity to leave. This study will utilize theories that numerous studies have successfully utilized for research - the motivation-hygiene theory (Herzberg et al., 1959) used in conjunction with a propensity to leave scale (Murray, 1998). Many other factors that may also potentially influence employee retention (e.g., family finances, family issues, retirement, mental health issues, substance abuse issues, or personal preferences not captured by the theoretical framework of the study) will be not addressed in this study.

3. This study does not include school measures of effectiveness or performance or examine how those performance factors may affect teacher turnover decisions.
4. This study does not examine the effectiveness of individual teachers or examine how being more or less effective may influence teacher propensity to leave.
5. This study focuses on teachers, not paraprofessionals and other classified school staff. This decision was made for pragmatic reasons. The survey is more manageable when limited to teachers - it is certified teachers that the school district expends the most time and money attracting - and certified teachers are most directly responsible for student instruction and are the most likely employees to influence student achievement.

6. This study does not attempt to compare the results of teacher responses from individual schools within the school district. This was due in part to privacy concerns for teachers, and due in part to the likelihood of inadequate response sample sizes from individual schools that employ a small number of teachers.
7. The model used in this study does not account for temporal conditions related to teacher turnover decisions. Determinants of job satisfaction, as well as the self reported likelihood to leave current employment is influenced by attitudes that may change over time. While not accounting for temporal changes is a delimitation of this study, this is common in voluntary employee turnover studies.

### **Limitations of the Study**

This study, like all research studies, has limitations. Limitations are potential weaknesses or problems within a study that have been identified by the researcher (Creswell, 2005). The limitations of the study are as follows:

1. The decision to ensure the anonymity of the participants in the survey is a significant limitation. The researcher chose a method of data collection preserving the anonymity of respondents for several reasons. First, since job satisfaction is a personal issue with potential for personal embarrassment or controversy, it is assumed that more accurate and honest answers will be provided when an anonymous method of data collection is utilized. Second, given the sensitive nature of the data being collected and the potential for the data to be utilized to help drive strategic decision-making in the school district with regard to teacher retention, it would be inappropriate for individuals to be

personally identified. The limitation associated with the collection of survey data with anonymous responses is that it is not possible to follow-up with respondents in order to gather additional data at a later time.

2. In regards to measurement, this study relies on one method of measurement, a questionnaire survey instrument, to provide data for the constructs. The questionnaire survey instrument has not undergone psychometric analysis or norming.
3. While the use of Likert scales may be considered a limitation, the questionnaire survey instrument being utilized includes a six-step scale with no neutral response, which serves to lessen the potential issues with response variation.
4. The accuracy of the data is limited by the use of a self-reported survey instrument to measure respondent teacher levels of job satisfaction, job dissatisfaction, and propensity to leave. There is likely measurement bias resulting from utilizing a questionnaire survey data collection technique since there may be discrepancies between actual preferences and the preferences that are revealed on a questionnaire survey instrument, however this would be a common bias attributable to any study utilizing a questionnaire survey instrument. Due to the importance placed on individual perceptions in job satisfaction studies, self-reported measures are appropriate and suitable as a means of data collection related to job satisfaction.

## **Significance of the Study**

A substantial body of research has studied teacher retention and turnover by examining school districts, schools, and the characteristics of students, but comparatively little is known about the psychological and organizational factors that may serve to influence the retention and turnover of teachers within schools and school districts (Finster, 2013). Leaders in the field of education have indicated that further research should be conducted with respect to teacher retention in schools and school districts in rural Alaska (Kaden, Patterson, Healy, & Adams, 2016). The limited research-base concerning teacher turnover in rural Alaska inhibits the ability to advance effective policy approaches to attempt to increase teacher retention in a strategic manner (Kaden et al., 2016). Rural Alaskan school districts would benefit from a better understanding why teachers leave so that funds and human resources can be allocated in strategic ways to help maximize teacher retention and thereby minimize teacher attrition (Kaden et al., 2016).

This study will focus on the teacher job satisfaction and teacher indicated propensity to leave positions in the Bering Strait School District, which is a public school district that serves the Bering Strait Region. This study will seek to address a problem of practice by examining to what extent teachers are satisfied or dissatisfied with various aspects of their job and how these factors relate to teacher indicated propensity to leave the school district. This data will be practical in helping school district leaders to better strategically align financial and human resources in an attempt to enhance teacher job satisfaction and increase teacher retention.



This study will contribute to the theoretical body of research on job satisfaction and propensity to leave in the PK-12 public school setting. Since a study examining the relationship between teacher job satisfaction and propensity to leave through use of motivation-hygiene factors and a propensity to leave scale has not previously been undertaken in rural Alaska, this study may inform future research that is carried out in the state. Future studies may provide new perspectives on teacher job satisfaction and propensity to leave variables in other environmental and cultural contexts.

This study may inform other school districts and researchers in rural Alaska. In order to reduce teacher attrition, it is helpful to know which type of teachers are leaving and what factors are associated with teacher decisions to leave. While the study may have more limited generalizability to other school districts outside of the Bering Strait region or outside of rural Alaska, it may identify factors of job satisfaction and dissatisfaction that could be applicable in other rural school districts and that would be worthy of future study. This study also may provide a framework for future studies related to teacher job satisfaction and propensity to leave in other PK-12 school districts. Outside of the field of education, the results of this study could also potentially be useful for policymakers and regional non-profit groups who are seeking to socially and economically strengthen the Bering Strait region or other rural regions of Alaska.

It is understood that differences may exist between teacher perceptions - from district to district, region to region, and state to state - that could influence the generalizability of the study's results. Nevertheless, the results of this study reflect the teachers of the Bering Strait School District in rural Alaska, and are to a degree

generalizable to public school teachers in rural Alaska, and to a more limited extent, to public school teachers in the state of Alaska, and public school teachers in the nation.

### **Chapter Summary**

This quantitative study will examine the relationship between teacher job satisfaction and teacher indicated propensity to leave in the context of the Bering Strait School District, a PK-12 public school district in rural Western Alaska. The factors of the motivation-hygiene theory (Herzberg et al., 1959) used in conjunction with a propensity to leave scale (Murray, 1998) were chosen as the theoretical framework for the study due to their prior application in various educational settings, their practicality for use in the questionnaire survey instrument, and the ability to incorporate factors specific to rural Alaska. This study will seek to address a problem of practice by examining how teachers are satisfied or dissatisfied with various aspects of their job, and by examining how these factors relate to teacher indicated propensity to leave their school, school district, and the teaching profession. This data will be pragmatic in serving to inform educational practitioners as they seek to strategically align financial and human resources in an attempt to increase rates of teacher retention. This study will add to the theoretical body of research on teacher job satisfaction and propensity to leave in the PK-12 public school setting.

## Chapter II

### Review of the Relevant Literature

#### Organization of Chapter II

Chapter II examines relevant scholarly literature and is composed of three sections. The first section of this chapter (section 2.1) provides an overview of the unique geographical, historical, and cultural context of schooling in the Bering Strait School District in rural Western Alaska, as well as examines the demographics, lifestyle, and beliefs of its Alaska Native stakeholders. The second section of the chapter (section 2.2) will highlight what is known about job satisfaction and propensity to leave, and how these factors relate to teacher retention and turnover - nationally, in rural areas, in Alaska, and in rural areas in Alaska. The third section of this chapter (section 2.3) will explicate the theoretical framework of the study - the factors of the motivation-hygiene theory (Herzberg et al., 1959) will be used to frame the determinants of teacher job satisfaction and will be used in conjunction with an employee propensity to leave scale (Murray, 1998) that will be used to frame teacher indicated propensity to leave their school, the school district, and the teaching profession. Prior studies in PK-12 education using a similar theoretical framework will also be reviewed. Following these three sections will be a chapter summary.

#### **Section 2.1: The Historical and Cultural Context of Schooling in Rural Alaska and the Bering Strait Region**

**Overview.** “Since the sources of teacher [satisfaction and] dissatisfaction depend on the specific conditions of the schools in which they teach, research on rural teachers’ satisfaction with their work life should describe with some care the particular community

and school context” (Kleinfeld & McDiarmid, 1986, p.117). The teacher participants in this study work in rural Western Alaska in isolated Eskimo villages in geographical, historical, and cultural contexts that are unique unto themselves. This section will review relevant literature in order to help describe these unique contexts of teaching and learning.

This section will provide informational headings on: the Alaskan context, types of schools in Alaska, Alaska Native demographics, misperceptions about the historical and cultural contexts of Alaska, today’s lifestyle of the people of the Bering Strait region, differing worldviews, Alaska Native views on public education, Alaska Native students at risk, schooling in the Bering Strait School District, the future of rural Alaska Native education in the 21st century, and the cultural relevance of teacher retention in Alaska.

**The Alaskan Context.** The state of Alaska possesses many unique features which make it identifiable by people around the world. For many, Alaska is the land of the midnight sun, northern lights, glaciers, icebergs, frozen seas, polar bears, frozen tundras, oil pipelines, and Mt. McKinley (Denali) towering above land stretching in all directions. Alaska certainly is all of these things and much more. Alaska in many ways is a land of contrasts and extremes that is in part due to its vastness. Alaska covers 586,412 square miles and is approximately one-third the size of the remaining land area of the U.S (see Figure 6). The 33,000 mile coastline of Alaska is longer than the Atlantic and Pacific coastlines of the lower 48 states of the U.S. Alaska has the tallest mountain in North America, the second longest river in the nation, active volcanoes, and more than half of the glaciers in the world. Alaska has the unique climate and unspoiled natural



Source: Wikimedia Commons. Retrieved from: <https://commons.wikimedia.org/wiki/File:Alaska-Size.png>

*Figure 6.* The size of Alaska compared to the lower 48 states.

environment to support some of the most unique animals in the world. Alaska also boasts the northern-most, the western-most, and the eastern-most physical locations in the U.S. (Barnhardt, 1994, 2001).

Not least among Alaska's unique characteristics are its peoples. With approximately 740,000 people living across 586,412 square miles, Alaska claims among the lowest population densities of any region in the world (a bit more than one person per square mile) (Barnhardt, 2001). There are three larger cities in Alaska - Anchorage (pop. 298,192), Fairbanks (pop. 32,751), and Juneau (pop. 32,468) as well 20 small towns and approximately 180 villages (Barnhardt, 2001). The three larger cities in Alaska offer the same amenities typically found elsewhere in the nation. Juneau, the capital of Alaska, is located as far from villages located in the northern and western parts of Alaska as the

state of Colorado is located from the state of New York. The majority of villages in Alaska are reachable only via bush plane or by water via ferry or boat. Approximately 120,000 of Alaska's 740,000 residents are from tribes of Eskimos, Indians, and Aleuts, who collectively are referred to as Alaska Natives. With 20 different Alaska Native languages, and dialects from all geographical areas of the United States, the state of Alaska boasts unusual linguistic diversity in a region with such a small population (Barnhardt, 1994).

According to Barnhardt (1994), while a growing number of Native Alaskans now live in urban areas, for many Alaskans, the terms 'rural' and 'Native' can be used interchangeably; for example, if one referred to a 'Native village' it would likely be assumed by those living in the state that the context was rural, and likewise if one referred to a 'rural village' it would likely be assumed by those living in the state that the village was inhabited predominantly by Alaska Natives.

**Types of Schools in Alaska.** Today, nearly all Alaska students attend school in one of three primary types of school settings: (a) village schools; (b) rural regional hub schools/smaller road system schools/marine highway schools; or (c) urban schools. Barnhardt (2001) documented the features of each of the primary types of school settings in Alaska:

1. **Village Schools:** In schools in rural villages, the large majority of students are Alaska Native. Most schools in villages serve students in K-12 and typically employ from one to ten teachers. Due to small enrollments, instruction is frequently delivered in multi-grade classroom settings, and instruction in primary grades may be in a Native language. The district curriculum may

include Alaska Native issues, traditional knowledge, and cultural perspectives. Local community personnel serve as paraprofessionals and bilingual/bicultural instructors in the majority of schools in villages, and the majority of teachers come from outside of Alaska. The schools that are the subject of this study in the Bering Strait School District, are classified as village schools (Barnhardt, 1994, 2001).

2. Rural Regional Center and Road System/Marine Highway Schools: In the larger rural communities and transportation hubs (e.g., Nome, Barrow, Kotzebue, Bethel) where the population of the town or village is 30 to 50% non-Alaska Native, and on the road system or marine highway that can be reached by car or ferry with primarily non-Native population (e.g., Sitka, Ketchikan, Kenai). These schools have aspects of both schools located in urban areas and schools located in villages. Some of these schools are managed by the same Regional Educational Attendance Area (REAA) district that manages the village schools in the region. The availability of support programs and curriculum components for Alaska Natives varies substantially in these schools according to variation in the size of the Alaska Native population being served (Barnhardt, 1994, 2001).
3. Urban schools: Anchorage, Fairbanks, and Juneau have the three largest populations in Alaska and the schools in these cities now serve approximately 30% of the Native student population in the state. These cities have schools that are similar in many respects to schools in cities in other parts of the United States. These schools are diverse with Alaska Natives representing the

largest minority group. Most schools in cities have one or more programs that are aimed at supporting Native students. These special programs may include academic tutoring, allowing for student participation in community cultural events, or Native cultural heritage activities (Barnhardt, 1994, 2001).

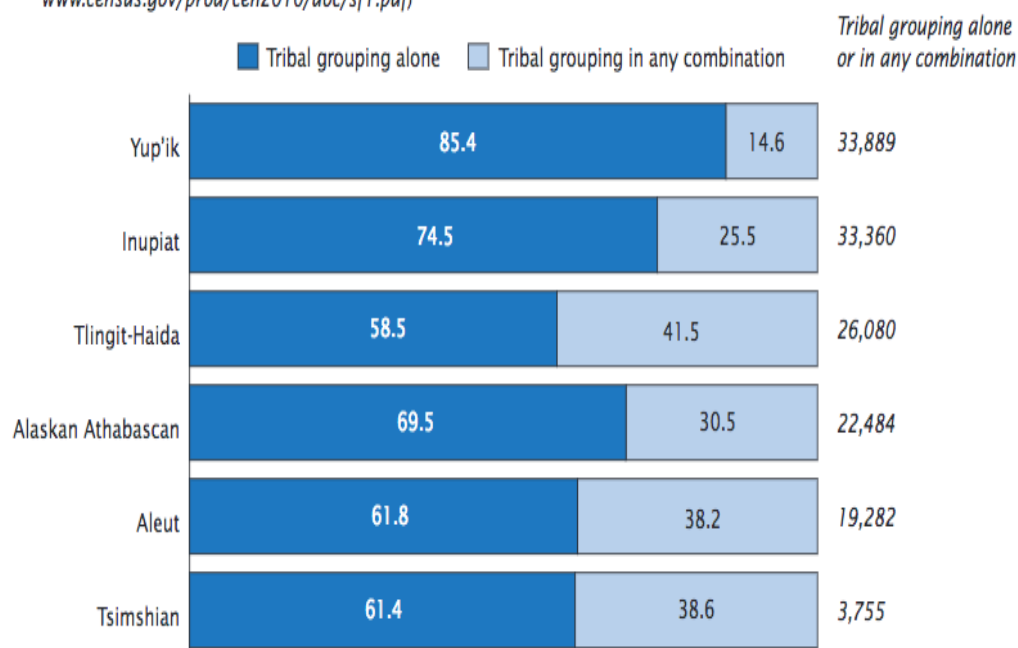
**Alaska Native Demographics.** According to a 2013 study by the Alaska Department of Labor and Workforce Development, there were approximately 120,000 Alaska Native people living in Alaska. Alaska Natives make up approximately 15% of the population of the state of Alaska - this represents the largest percentage of indigenous people of any state in the United States (Reyhner, 2006). About 10% of the state's population lives in small, rural villages, which are predominantly Alaska Native. The remaining Alaska Native population lives in the state's towns and cities. According to 2010 census data, among U.S. cities with 100,000 or more people, Anchorage, Alaska had the highest percentage of Native American people representing 12% of the population of the city.

Alaska Natives can be broadly classified into three groups which can be further divided by tribal groupings - Eskimos 56% (Inupiaq, Yup'ik, Siberian Yup'ik), Indians 34% (Athabascans, Tlingit, Haida, Tsimshian), and Aleuts 10%. The 2010 U.S. Census presented data for six Alaska Native tribal groupings (see Figure 7). The two largest Alaska Native tribal grouping populations were Yupik (34,000) and Inupiat (33,000). The Yupik and Inupiat populations are the two predominant populations that inhabit the Bering Strait region that is served by the Bering Strait School District (see Figure 7). According to 2010 census data, the Nome Census area (the area served by the



### Percentage Distribution of Alaska Native Tribal Groupings by Response Type: 2010

(For information on confidentiality protection, nonsampling error, and definitions, see [www.census.gov/prod/cen2010/doc/sf1.pdf](http://www.census.gov/prod/cen2010/doc/sf1.pdf))



Source: U.S. Census (2010)

*Figure 7.* Distribution of Alaska Native tribal grouping.

Bering Strait School District) had 9,196 people, 2,693 households, and 1,898 families living in the area for a population density of 0.3 people per square mile. The racial makeup of the Nome census area was 75.2% Alaska Native/Native American, 19.2% White, 4.21% from two or more races, 0.67% Asian, 0.38% African American, and .20% from other races. Sixteen percent (16.2%) reported speaking the Yupik language at home, while 8.75% reported speaking Inupiaq. Another 2% reported speaking 'Eskimo' which could refer to either language. For every 100 females age 18 and over, there were 122.7 males.

Nearly 60% of Alaska Native students in the state attend school in rural and remote rural communities where the majority of students are Alaska Native; these schools

range in size from schools with under 10 students (and as little as one teacher) to around 500 students. The other 40% of Alaska Native students attend schools in urban and suburban areas where the majority of the student population is Caucasian (Barnhart, 2001).

### **Misconceptions about the Historical and Cultural Contexts of Alaska.**

Barnhart (2001) noted, “The geographic, historical and cultural context of Alaska has always provided challenges and afforded opportunities for schooling that are often unique” (para.1). Barnhart (2001) also observed that Alaska Natives have often been given short shrift by policymakers and scholars that have examined Native American education:

Even though the educational context of Alaska has gone through many unusual twists and turns over the years, little attention has been given by policy makers and practitioners to the history of education in Alaska. . . . [There is] a scarcity of published information on the history of education in Alaska in general, and in particular, on the history of schooling for Alaska Native people. . . . Even with the highest percentage and the sixth largest overall population of American Indians/Alaska Natives in the United States, most material written about American Indian education focus only on Indian people in the ‘Lower 48’ states. . . . (para. 2)

Some authors covering Native American history have given a cursory treatment of Alaska Natives noting the unique context in Alaska, while other authors have ignored Alaska Natives entirely (Barnhart, 2001).

Barnhart (2001) identified four factors about the education of Alaska Natives that are not fully understood by many educators, policymakers, and scholars that have led to misunderstandings:

1. Uniqueness of Alaska Contexts - The historical, political, cultural, economic and geographical contexts of Alaska are distinct enough from other states, that

the 'Alaskan variable' must be taken into account as an important factor in all decisions about education in Alaska.

2. Differences Among Native Groups - There are significant differences among the twenty different Alaska Native groups in Alaska, and these are often not recognized.
3. Legal rights of Indigenous People - Despite the unique constitutional status of indigenous people and the federal government's binding treaty obligations to American Indians (which have been extended in large part to Alaska Natives), many misunderstandings continue about the status and rights of Alaska Natives with regard to public education, health, social and economic services, and natural resources.
4. History of Alaska Native Education vs. History of American Indian Education - The history of Alaska Native education is not the same as the history of American Indian education, and the differences are significant (para. 7).

An accurate historical perspective of schooling in Alaska will enhance the ability of educators, policymakers, and researchers to build on past approaches to inform appropriate educational policy and practices for the future (Barnhart, 2001).

**Lifestyle and Challenges of the People of the Bering Strait Region.** Living conditions in the villages in the Bering Strait region are unique and challenging when compared to other regions of Alaska, and they vary from village to village within the region (as do the local history, languages, practices, and cultures). While this section provides only a limited understanding of what life is like in rural villages, and does not

adequately capture the optimism, rich cultural heritage, and resiliency of the people, it serves to describe some of the many challenges faced by the inhabitants of the region.

***Subsistence Lifestyle.*** The majority of the Alaska Native residents of the Bering Strait region live in villages (with a population ranging from approximately one hundred to a few hundred) or in the town of Nome (pop. 3,800). Alaska Native people who live in rural villages live a unique lifestyle based upon many traditional cultural practices, yet they incorporate many aspects of modern lower 48 American culture. According to Barnhardt (2001):

Even though in most rural communities today one will see trucks, cars, snow machines, refrigerators, televisions, computers, telephones, and modern school buildings, these will be next to log cabins, dog teams, fish wheels, food caches, meat drying racks, and outhouses. Each village has at least one store, but many Native residents continue to practice a subsistence lifestyle and depend heavily on moose, caribou, seal, walrus, whale, fish and berries for their supply of food. (para. 18)

Subsistence hunting, fishing, and gathering is an important economic and cultural activity for many Native Alaskan people in the region. In 2005, more than 91% of the Inupiat households that were surveyed identified that they participated in hunting, fishing, or gathering subsistence activities (Barnhardt, 2001).

***Isolation and Poverty.*** Villages are small, isolated, and have few amenities, while poverty is also a reality for many of the inhabitants of the Bering Strait region. Schnell (2019, para. 67) documented the reality in many of Alaska's villages:

Villages have only the necessities: a school, a store, a post office and, usually, a single jail cell. There are no playgrounds or parks. When the snow melts in spring, toddlers entertain themselves by splashing around in giant mud puddles. Everyone looks out for everyone else's children, pulling kids to the side when a four-wheeler – cars are rare here – rolls down the street.

Bush plane flights go in and out of the village airstrips several times a day bound for Nome (pop. 3,841) or Unalakleet (pop. 686) where onward flights can be had to Anchorage. Since it is not uncommon for the cost of round trip flights from remote villages to Anchorage to approach the rates of flights from the lower 48 to continental Europe, flight costs can be prohibitive, further serving to restrict travel and contribute to isolation. The rates of individuals living below the poverty level in the rural villages of the region range from between approximately two and five times more than the state average of 11% (City-Data.com, 2019). Many inhabitants in the region do not seek or obtain regular employment due to lack of availability of jobs, and instead rely on a combination of government assistance and subsistence hunting and gathering activities.

***Overcrowding and Inadequate Housing Conditions.*** The lack of housing and overcrowded households are also persistent problems in the region. Lisa Murkowski, United States Senator from Alaska (Krenzien, 2018, p. 1), remarked on the severity of the problem:

The overcrowding rate here in the Bering Strait region is one of the highest in the state, with an estimated 27 percent of households being classified as overcrowded or severely overcrowded. That's more than 4.3 times the statewide average and more than 8.3 times the national average. . . . It is not uncommon for a household in rural Alaska to have multiple generations or multiple families living in them.

President/CEO of the Bering Strait Regional Housing Authority, Christopher Kolerok observed, "Rooted in a close-knit culture and deep familial links, many families prefer to house people in need, and live in severe overcrowding, rather than let individuals risk certain death" due to the frigid climate, which often leads to substandard living conditions for household (Krenzien, 2018, p. 1). Overcrowding, combined with a lack of garbage collection services and a lack of access to running water and sewage in some

homes, can also lead to health and safety concerns for some inhabitants of the region. Krenzien (2018) documented that approximately 465 households in the Bering Strait region do not have running water and sewage. President/CEO of the Bering Strait Regional Housing Authority, Christopher Kolerok (cited by Krenzien, 2018) observed, “The lack of safe, sanitary and affordable housing threatens the survival of Native cultures and the villages and towns many Alaska Natives call home (Krenzien, 2018, p. 1).

The lack of housing in the villages of the Bering Strait region not limited to Alaska Native populations. Teachers in local schools are often limited to available or school assigned district owned housing, while itinerant counselors, school psychologists, occupational therapists, school maintenance workers, and visiting journalists, academics, and state and regional agency officials frequently sleep on the floor of classrooms in schools during their visits to villages due to a lack of housing options or motels.

***Sexual Abuse, Domestic Abuse, Child Sexual Abuse, Suicide, and Homicide.***

Unfortunately, suicide, domestic and sexual abuse, child sexual abuse, and homicide are also significant concerns in the Bering Strait region. Rural Alaska has some of the highest rates of suicide in the world (Yardley, 2007), while suicide rates for Alaska Natives in Northwest Alaska have the highest rates of suicide in the United States and were three times that of nonnative Alaskans and five times the national rate at 60 suicides per 100,000 people (Wexler, Silveira, & Berton-Johnson, 2012). Wexler et al. (2012) noted that the suicide rate for Alaska Native youth aged 15-19 years old was 18 times higher than for than American youth overall. About 84% of suicides in Northwest Alaska were committed by males (Wexler et al., 2012).

Alaska Native women have been found to be about 9.7 times more likely than other Alaskan women to be victims of sexual assault, with the state as a whole having the highest rate of rape in nation at about three times the national average (Bernard, 2018). According to the 2010 Alaska Victimization Survey, representing the most comprehensive data to date, 59% of Alaskan women have been victims of sexual assault, partner violence, or both (Bernard, 2018) with 37% of women having experienced rape or sexual assault (Sutter, 2013). Child sexual assault is also a major concern with the rate of child sexual assault in Alaska being approximately 6 times the national average (Bernard, 2018). The homicide rate of women in Alaska has also been reported as the highest in the nation (3.4 per 100,000) (Schnell, 2019).

In part, the lack of a strong law enforcement presence in local villages may contribute to the prevalence of crime. State troopers are not stationed in every village. Many villages are patrolled only by a local village officer, who may have received no formal training, and carry pepper spray, a taser, and handcuffs, but no gun. Since frequent turnover among these positions and challenges in identifying replacements are common, these factors can contribute to less than uniform enforcement of the law (Hopkins, 2018).

***Alcohol, Drug, and Tobacco Abuse.*** Instances of alcohol and drug abuse in villages in the region are common. Most of the villages in the region are ‘dry’ villages, or villages who through local ordinance have opted into state statute making the transportation of alcohol into villages illegal. Despite alcohol importation being illegal in most villages, alcohol consumption and abuse in villages is common, with ‘black market’ prices for bottles of liquor varying according to availability by village and the prevailing

climate in village law enforcement and sometimes reaching into hundreds of dollars per bottle. The resulting economy serves to further impoverish many of those inclined to partake in drink. Drug usage, in particular, marijuana, is also widespread. Use of cigarettes and chewing tobacco is also widespread in the villages.

***Nontraditional Sleeping Patterns.*** Due in part to the high rates of unemployment in rural villages, both extended and curtailed hours of day and night, overcrowded homes with inadequate number of bedrooms, beds, or places for sleeping for the number of people in the household, and the prevalence of drug and alcohol abuse, nontraditional sleeping patterns are observed in a number of households in villages in the region. It is not uncommon for adults or students to ‘stay up’ all night long, get very little sleep at night, or to vary sleeping patterns or hours on a frequent basis, leading to sleep deprivation.

***Diet and Health.*** The diet in the region typically consists of a mixture of traditional Native foods prepared from subsistence hunting and gathering activities (e.g., seal, walrus, whale, caribou, berries) and contains a high fat content through the use of seal oil made from seal blubber, as well as frozen and processed foods purchased from the local store (flown in by bush plane). Due to the limited availability or unavailability of fresh fruits and vegetables, food consumed by locals from the store frequently lacks high nutritional value and in many households large quantities of chips, processed foods, and soda are consumed. Depending on the household, meals are not always prepared and distributed to all members of the household, or prepared at all (if, for example, chips are consumed), and food may be distributed to individuals of the household based on availability, preference, and family relationships (since more than one family may be



living together). The consumption of soda and energy drinks is particularly high as a result of the unavailability of running tap water in many homes, the undesirability of this water for drinking, the desirability of caffeine content due to sleep patterns, and the high transportation cost of flying in heavy liquid goods making the purchasing water nearly as expensive as soda (typically at least \$1.50 - \$2 per bottle or can). Fresh milk is also typically unobtainable in village stores, meaning that shelf milk that does require refrigeration is the only viable option. This leads to the cost of milk in many villages equating to \$15 a gallon or more, resulting in most children not drinking milk outside of school lunches, and in many instances, drinking soda rather than water at home.

Nutritional habits lead to a number of potential health concerns, including dehydration, diabetes, osteoporosis, and high instances of dental cavities. In some villages, the lack of running water and in-house laundry facilities contribute to the inadequate frequency of showering and laundering clothing in some households.

Healthcare in villages in the region is administered in village clinics, served by village health aides who follow treatment protocol and communicate with doctors and nurse practitioners in other areas of the state for diagnosis and the dispensing of pharmaceutical drugs. Patients requiring x-rays, medical procedures, or examination by a doctor are required to fly from the villages to Nome or Anchorage for treatment. Basic dental services are available in villages through itinerant dental providers who visit villages on a periodic basis, while more intensive needs require flights to Nome or Anchorage.

***Related Challenges to Children Attending School.*** Due to the aforementioned challenges of life in rural villages, children face a number of challenges when they attend

school. Children may arrive at school without proper clothing or without laundered clothing, dehydrated, hungry, sleep deprived, and affected by the events taking place in the overcrowded household the night before which may have involved adults up all night watching television or consuming alcohol and/or drugs. Children may not have regularly established sleeping hours, a bed of their own, or even a couch, and some sleep on the floor. Girls are disproportionately likely to have experienced a prior sexual assault compared to their peers on the road system in Alaska or in the lower 48. Elementary school children may be users of chewing tobacco, while marijuana is a concern for middle school and high school students (and may be cheaper to acquire than cigarettes due to state taxes and cigarette pricing in village stores). Due to all of these factors, and variability from household to household in terms of parent/guardian prerogative in ensuring the regular school attendance of children, the attendance rate of some children becomes an obstacle to learning. As students become older, some question the value of attending school and/or exerting effort in learning since job outcomes in the village may appear to be limited and fixed - there are few available jobs and most adults in the village do not work - and the many of the topics taught in school may seem to have little practical relevance and/or limited connection to the local culture.

**Differing Cultural Worldviews.** While there are significant differences among Alaska Native groups in terms of geography, language, culture, values, and lifestyles, most share with one another a set of values and beliefs that include: a prioritization of communal and family considerations over private individual considerations, a relative favoring of sharing over accumulating, a respect for the experience and wisdom of elders, and a respect for spirituality and the interconnectedness between humans, the natural

world, and its living things (Barnhardt, 2001; Kawagley, 1995). These broad beliefs, which are often in opposition to Western values and practices, have been a focus of a number of writings by Alaska Natives (Barnhardt, 2001). According to Barnhardt (2001):

The writings and oral histories of many Alaska Native people confirm that a discernible and distinctive world view revolving around values related to family, community, spirituality and the environment is not only central to the lives of many of Alaska's indigenous people, but is often in marked contrast with Western beliefs and practices. (para. 27)

Cajete (1994) explored the indigenous educational philosophy and described a community of shared metaphors and understandings that are specific to Native cultures, finding that Natives view life through different cultural metaphors than those that influence mainstream America. Kawagley (1995) noted that Alaska Native people have their own unique ways of relating to nature, their surroundings and each other, which have been given little attention by non-Native educators (Barnhardt, 2001).

Native languages and cultures have eroded over time. This is partially due to federal and state education policies over much of the past two centuries that have emphasized the need for 'Americanization' of Native American students (Reyhner, 2006). Despite the influence of Western culture, Alaska Natives retain their own unique culture and perspectives. Barnhardt (2001) observed that recently many Alaska Natives as well as non-Alaska Natives are acknowledging that the Western system of education does not always fit well with the Alaska Native cultural worldview and new approaches to education are being considered.

**Alaska Native Views on Public Education.** Today in some Alaska Native families there is resistance to, skepticism about, or conflicting feelings surrounding the

role of public education. According to Hirshberg (2009), citing Darnell and Hoem (1996):

Early education policymakers in territorial Alaska viewed traditional Native societies as uncivilized, morally deficient, and in need of change. Their goals for formal education were to Christianize and ‘civilize’ Natives in order to accommodate the economic and cultural needs of the dominant Western society. (p. 1)

When some Alaska Native adults reflect upon their own educational experience they recall being forced to leave their homes and families to attend Bureau of Indian Affairs (BIA) boarding schools. In many cases, these schools prevented students from using their native language and acknowledging and participating in their native culture, and in some cases, were the site of emotional, physical, or sexual abuse directed towards Alaska Natives. Given this history, while their children or grandchildren may attend public school in their local community, some Alaska Natives have an implicit skepticism about public educational institutions and the degree to which it adequately reflects their Native values and culture (Reyhner, 2006).

In some cases, students face a dilemma in choosing the degree to which they embrace the values and culture of their family, which may be to some degree in contradiction with the values and culture promulgated at the school they attend. The consequence of Alaska Native students rejecting the values and culture of the school may result in lost academic and occupational opportunities in the future. However, alternatively, the consequence of rejecting one’s family’s values and culture can result in a social distancing if students become less able to relate to their parents and families (Reyhner, 2006).

**Alaska Native Students at-Risk.** In Alaska's public schools, Alaska Native students are the most at risk of any ethnic group (Hirshberg & DelMoral, 2009). Nationwide statistics indicate that Alaska Native students are among the most at risk of all minority groups for failure in school. When compared to non-Native students, Alaska Native students drop-out of school more frequently, are much less likely to graduate, and generally have lower levels of educational attainment (Alaska Native Education Study, 2001; Hirshberg & DelMoral, 2009). Multiple obstacles to success that have historically impeded the academic achievement of Alaska Native students in rural schools have been identified in the literature. Among the factors that studies have identified include: language and culture differences between student/parents and school staff, ignorance of Native culture among school staff; curriculum, learning materials, and teaching styles that do not relate well to Native cultural experiences; standardized tests that do not take into account language and cultural differences, differences in learning styles between Native and non-Native students, lack of educational role models, parent attitudes towards education; problems at home including alcoholism, drug abuse, neglect, and abuse; depth and breadth of poverty, apathy and boredom, teen pregnancy, and low self-esteem. These factors can contribute to the gap between the needs of Alaska Native students and the effectiveness of the educational services that they receive in public schools (Alaska Native Education Study, 2001).

Decisions that schools make about their curriculum, instruction, and school structures have a direct impact on student outcomes and on Native student perceptions about schooling. Efforts to adapt curriculum and instruction to be culturally responsive and better reflect the needs and culture of Native students can help to create more

meaningful instruction for Native Alaskan students and enhance the likelihood that students will be successful in school (Reyhner, 2006).

**Schooling in the Bering Strait School District.** The Bering Strait School District (BSSD) covers approximately 77,000 square miles (an area that is roughly the size of the state of Nebraska) in Northwest Alaska and is composed of 15 schools (ranging from 16 students to 260 students), located in 15 villages, populated by predominantly Alaska Natives (Yupik, Siberian Yupik, and Inupiat), and serving a student population of approximately 1,900 students that is 98.9% Alaska Native, 47% Limited English Proficient (LEP), and 22.8% migrant. The distance from the northernmost village in the district (Shishmaref) to the southernmost village in the district (St. Michael) is 225 miles. The district also serves St. Lawrence Island and Diomedede Island. The route of the Iditarod Trail Sled Dog Race runs through six villages in the district including Unalakleet where the district offices are located. Russia is visible from four district schools with the naked eye (BSSD, 2013).

Alaska became a territory in 1867. Prior to Alaska statehood, the Bureau of Indian Affairs (BIA), located in the Department of Interior, was responsible for the education of Alaska Native students in the Bering Strait region (see Figures 8 and 9). Most of the BIA schools in the region only provided education through the 8th grade. If students from the region chose to attend high school beyond the 8th grade, students attended Mt. Edgecumbe High School in Sitka, Alaska (977 miles from the BSSD district office in Unalakleet) or other boarding schools in the lower 48 that were located thousands of miles from the region (BSSD, 2013).



Source: Susan Bernardi collection at the Anchorage Museum of History and Art. Retrieved from: [http://www.alaskool.org/native\\_ed/images/anemuseum/wales\\_3.htm](http://www.alaskool.org/native_ed/images/anemuseum/wales_3.htm)

*Figure 8.* School in Wales, Alaska, circa 1910.



Source: Alaska Historical School Album Vol. 1, National Archives-Pacific Alaska Region, Regional Archives. Retrieved from: [http://www.alaskool.org/native\\_ed/images/naraphotos/0-26steb.htm](http://www.alaskool.org/native_ed/images/naraphotos/0-26steb.htm)

*Figure 9.* School in Stebbins, Alaska, 1923.

In Unalakleet, the Covenant Church converted a children's home into a boarding high school in 1955. Covenant High School charged tuition and children from low income families were subsidized. The school served approximately 100 students from Western Alaska. Due to its limited capacity, it could not come close to meeting the demand for high school students from the region with many students being required to attend boarding schools in the lower 48 due to limited capacity at the school. The Covenant School operated until 1985 (BSSD, 2013).



In 1972, a class action lawsuit was filed on behalf of Alaska Native children in villages without secondary schools. According to Hirshberg and DeMoral (2009):

The Alaska Supreme Court remanded *Hootch v. Alaska State-Operated School System* for trial on the claim that the state's failure to provide local high schools in Native villages constituted a pattern and practice of racial discrimination. Plaintiffs demonstrated that predominantly white communities had high schools, while Native communities - even larger ones - were required to send their children to boarding schools or homes. After a year of negotiations, the state and the plaintiffs reached an out-of-court settlement . . . the State of Alaska agreed to build a system of village high schools serving any community with eight or more students of high-school age (later changed to ten or more students). Within six years, the state implemented new or expanded high school programs in more than 100 Native villages. (p. 2)

With the settlement of the Molly Hootch court case in 1976, Regional Educational Attendance Areas (REAA) were created, and high schools were constructed and opened in the villages in the Bering Strait region. With the construction of high schools in each village, students did not need to leave their families and communities to attend high school. Over the next few years, community members of the villages in the Bering Strait region voted for their elementary schools to leave the BIA system and to become aligned with the REAA system. By 1981, all of the schools in the region in grades K-12 were under the authority of the REAA system (BSSD, 2013).

REAA #2, with district offices located in Unalakleet, is now commonly known as the Bering Strait School District. In addition to a regionally elected board of education, each village in the school district has a locally elected Advisory Education Committee (AEC) that meets monthly to advise school administration and the board of education on educational and cultural matters in each village (BSSD, 2013).

It is the goal of the Bering Strait School District to work towards developing a comprehensive career and technical education curriculum and delivery system to serve all

students and to develop post-secondary plans to help students successfully transition to life after high school. In addition to promoting academic success, the school district strives to develop and promote family, community, and regional partnerships and implement programs that promote culture and heritage and provide student support. The Bering Strait School District offers Native culture classes in each of the district's schools and seeks to recognize and utilize local expertise, and to incorporate local culture, heritage, and traditional values into the curricula of the district's schools. The Bering Strait School District offers opportunities for students to participate in local, regional, and state cultural events as well as seeks to involve students in documenting, publishing and archiving local culture and history. The Bering Strait School District also strives to support and promote the education of local students and community members to become paraprofessionals and certified teachers in the schools (BSSD, 2016).

**The Future of Rural Alaska Native Education in the 21st Century.** Alaska's educational history has been a gradual movement toward self-determination and local control in education, tribal government, and social services that has produced mixed results for the Alaska Native populations that have been served over the past decades (Barnhardt, 2001). The decentralization of the federal and state school systems and the rapid development of an extensive network of high schools in rural villages has led to major changes in a relatively short period of time. These rapid changes have highlighted many of the challenges and contradictions in historical educational policies applied to Alaska Native students (Barnhardt, 2001).

As a whole, Alaska Native students today have a far more diverse educational opportunities than any cohort of Alaska Native students has in the past. Alaska Native

students today are participating in a political, social, economic, and educational environment that is substantially different from that experienced by their parents and grandparents (Barnhardt, 2001). Many of today's high school students are now able to attend the same high school that their parents attended in their own community. On the other hand, despite the progress that has been made, schools will still be challenged to offer educational programs that are culturally relevant and responsive to the unique historical context of Alaska's many diverse rural Native communities. Barnhardt (2001) noted:

Educators in the twenty-first century in Alaska need to have the patience to allow for, and the passion to advocate for, deep-seated and fundamental long-term systemic changes in our schools. Since many of the factors that currently inhibit success for Alaska Native students in our public schools come from the lingering effects of past schooling policies and practices, Alaskans must be diligent in their efforts to learn wisely from the past history of schooling in the State. (para. 92)

While it may be premature to predict the future of schooling outcomes for Alaska Native students, the potential for Alaska Native students to succeed academically in culturally relevant ways now exists in ways that were not a reality just a few decades ago.

Appropriate, culturally relevant curricula are now available, highly qualified Alaska Native educators now live and work in every region of the state, and legal requirements allowing for local control and local school governance are now in place (Barnhardt, 2001).

**The Cultural Relevance of Teacher Retention in Alaska.** Due to the uniqueness of the educational setting in rural Alaskan villages, the process of cultural appreciation, understanding, personal and professional growth, and developing the relationships that are required for teachers to be successful in rural Alaska schools often takes a commitment of time and resources over a period of years. Locating, recruiting,

developing, and retaining teachers who are aware of the unique heritage of rural Alaska Native students and are committed to honoring this heritage in the context of curricula and instruction is an ongoing challenge for rural Alaska school districts. Once a teacher has successfully made the personal and professional transition to be successful in a rural Alaska school setting - the teacher has developed cultural awarenesses and social competencies, developed local relationships, and developed the necessary instructional skill sets - it is imperative that schools make every effort to retain this valuable resource (Barnhardt, 2001).

## **Section 2.2: A Review of the Literature on Job Satisfaction and Teacher Retention and Turnover**

**Overview.** This section will provide a review of the literature on job satisfaction and teacher retention and turnover (and the relationship between these factors) - nationally, in rural areas, in Alaska, and in rural areas in Alaska. To fully understand teacher retention and turnover, it is necessary to examine job satisfaction and the factors that leaving teachers most frequently identify as contributing to their propensity to leave their teaching positions. In teacher retention studies, propensity to leave (turnover intention) has been found to be influenced by job satisfaction (Bobbitt, 1991; Finster, 2013; Skaalvik & Skaalvik, 2011). While research on the relationship between teacher job satisfaction and why teachers leave their positions in specific regions of rural Alaska is lacking, national and state data is available about why teachers generally leave.

This section will provide informational headings on: the organizational approach to studies on teacher retention, propensity to leave (turnover intention), job satisfaction in the workplace, potential for teacher job dissatisfaction, potential for teacher satisfaction,

significance of teacher job satisfaction in schools, determinant factors of job satisfaction, working conditions (experienced by teachers), school characteristics (student/family demographic factors), teacher characteristics (teacher demographic factors), national trends in teacher retention and turnover literature, teacher retention in rural areas, teacher retention and turnover in Alaska, and teacher retention and turnover in rural Alaska.

**The Organizational Approach to Studies on Teacher Retention.** While the majority of the literature has approached teacher shortages from an economic perspective (often focusing on school and teacher demographics and overall teacher supply and demand) there is a growing body of literature approaching the issue from an organizational perspective that examines the relationships between teacher retention and organizational characteristics of schools (e.g., Ingersoll, 2001, 2002, 2003). This organizational perspective to examining teacher staffing concerns is based on the premise that teacher turnover is affected by the context of the work environment and the teacher supports in place in the schools that teachers work. Ingersoll (2003) and Finster (2013), citing Newman (1999), Rosenholtz, (1989), and Byrk (1990), noted that one benefit of applying this organizational perspective and focusing on the conditions in place in schools is that they are ‘policy amendable’ aspects of schools that can be changed through new policies and practices as opposed to teacher, school, or student demographic factors which are much more challenging to influence. Examples of the organizational conditions in schools and districts that can be examined from this perspective are: structures of compensation for teachers, levels of administrative support for teachers, levels of teacher input and influence over school and/or district policies, and the degree of collaboration within the organization (Ingersoll, 2001). This study will examine the

relationship between teacher job satisfaction and teacher self-indicated propensity to leave from an organizational perspective.

**Employee Propensity to Leave (Turnover Intention).** Finster (2013), citing Ajzen and Fishbein (1980), noted that the propensity to leave construct (employee turnover intention) is the best predictor of actual turnover, and there is some empirical evidence to support this claim. In general, turnover intention has been found to be an indicator of actual employee turnover (Finster, 2013; Griffeth et al., 2000; Lee & Mowday, 1987).

Despite being widely studied and being shown to be a powerful predictor of actual employee turnover, the propensity to leave construct has been largely neglected in research examining teacher turnover in the field of education (Finster, 2013). This study will contribute to the body of research by examining the relationship between teacher job satisfaction and teacher reported propensity to leave.

***Development of the Employee Propensity to Leave Construct (Turnover Intention).*** In their seminal book, *Organizations*, March and Simon (1958) advanced a general theory of organizational equilibrium, which involved a balancing employee contributions and organizational inducements. According to the model, individuals receive inducements from an organization, and in return, make contributions to the organization. Accordingly, both the individual and the organization strive for a state of relative equilibrium resulting in maintaining the continuance of the organization. Members will continue their participation in an organization so long as their perception of the inducements that are offered match (or exceed) their individual contributions. According to March and Simon (1958), the balance between inducements and

contributions determined the *propensity to leave* of a member in an organization - when inducements exceeded contributions, an individual was less likely to leave the organization, and when contributions exceeded inducements, a member was more likely to leave the organization. A variety of psychological factors were posited for linking individual turnover behavior with a number of demographic, organizational, and economic variables.

Mobley (1977) also developed a model for the employee turnover decision-making process. According to Mobley, the degree of employee job satisfaction can serve to influence whether an employee thinks of leaving their position, or has turnover intention, which has been termed, withdrawal tendency.

The work of March and Simon (1958), and Mobley (1977), influenced contemporary and subsequent thinking about job satisfaction and employee turnover by providing models that center on the job attitudes of individuals and the individual turnover intention (Finster, 2013). Today, these concepts are generally referred to in the context of employee job satisfaction, and employee turnover intention or employee propensity to leave (Holtom et al., 2008).

***Defining Employee Propensity to Leave.*** Propensity to leave can be understood to be the degree of intensity of turnover intention, or the identified likelihood of an employee to voluntarily leave their position. This study will collect data concerning teacher indicated propensity to leave in order to examine the relationship between this construct and teacher job satisfaction. Finster (2013), citing March and Simon (1958), Mobley (1977), Price (1977), Price and Mueller (1986), and Lambert, Hogan, and Barton, 2001, found that

turnover intention is a central construct in traditional turnover models. These models assert that job dissatisfaction or a lack of commitment prompt a turnover process prior to actual turnover . . . a substantial body of research reports a negative relationship between job satisfaction and turnover intentions. (Finster, 2013, p. 62)

**Job Satisfaction in the Workplace.** For most individuals, time spent working constitutes a significant portion of one's life, providing the means for acquiring material necessities in life. In addition, work allows the individual to consciously act on their surroundings and observe the outcomes of one's behavior. This process can potentially be satisfying or dissatisfying (Grady, 1984).

The process of work often places individuals in the context of an organization in which the efforts of many individuals are combined to achieve common goals. Various aspects of the work environment exert influences on job-related attitudes, which influence work-related satisfaction, which in turn serves to influence life satisfaction. It is therefore worthwhile for both employers and employees to attempt to develop satisfying job experiences and attitudes. An understanding of job satisfaction and its related factors may help to design jobs in which employees can achieve more satisfying experiences contributing to worker retention and productivity (Grady, 1984).

***Development of the Job Satisfaction Construct.*** While the topic of motivating workers extends back as least as far as classical antiquity in Western Europe, and concerns with the motivation of American workers were evidenced by Samuel Slater as early as 1789, the formal study of job satisfaction emerged with the need to measure productivity in the era of the industrial revolution (Ghazi, Shahzada, & Khan, 2013). The work of Frederick W. Taylor (1911) with regard to scientific management of workers has been cited as the earliest related formal examination of job satisfaction. Levenstein



(1912), Munsterberg (1913), and Slichter (1919) collected valuable data related to job satisfaction and job dissatisfaction on workers in various occupations, while Mayo and Roethlisberger (1920) examined the factors of social nature. Likert (1932) developed a scale for the measurement of attitudes, and soon after, the term *job satisfaction* first appeared in 1935. Mayo, Rothlisberger, and Dickson (1939) studied the relationship between job attitudes and work behavior. Maslow (1943) examined human needs and their relationship to motivation (a related factor in job satisfaction) leading to a hierarchy of needs, Herzberg et al. (1959) developed the motivation-hygiene theory, and Blai (1964) found that job satisfaction and need satisfaction were related. In later decades, numerous studies established and defined the relationship between job satisfaction and motivation, while numerous theories of motivation were developed that have served as a lens for the study of job satisfaction in the field (Akhtar, 2000).

While today, job satisfaction is one of the most frequently investigated variables in organizational behavior, has been studied in educational settings for over 50 years (Kim & Loadman, 1994), and is one of the most studied antecedents to employee turnover (Finster, 2013), historically, due at least in part to the influence of behaviorists on the field of psychology, less research has been conducted related to employee job satisfaction than in other areas related to employment (Ulricksen, 1996). In the past, psychologists tended to avoid doing research that relied upon affect-related data collected from introspective self-reports due to the belief that proper data should be empirically observable. Since employee job satisfaction is an affect, or an internal subjective state that is logically best reported by the employees experiencing it, satisfaction was not seen by some in the scientific community as a proper subject for study. Thus, because of the

lack of a theory stating observable causal relationships, the research on job satisfaction consistently looked simply for relationships among variables. Consequently, one of the historical challenges in assessing job satisfaction was the problem of defining the concept (Ulricksen, 1996).

***Defining Job Satisfaction.*** Skaalvik and Skaalvik (2011), in a study of teacher job satisfaction and motivation to leave the teaching profession pointedly observed, “A problem with the research on teacher job satisfaction is that there is no agreement on how to measure the construct” (p. 1030). Indeed, historically, job satisfaction has been an elusive concept to define with considerable differences in definitions. For instance, there is no evidence of Herzberg having ever provided a specific definition of job satisfaction (Leppanen, 2011). Although historically there has been a lack of consensus in the literature as to the nature and scope of job related satisfaction and dissatisfaction, there has been general agreement that these are related to affect, attitudes, or emotional responses toward a job (Leppanen, 2011).

According to Ulricksen (1996), citing Locke (1976), since job satisfaction is an emotional response, the meaning of the concept can only be understood by a process of introspection that relies upon an individual's thoughts and mental processes. Therefore, job satisfaction and dissatisfaction are a function of the relationship between what an individual wants from one's job and what the individual perceives that the job is offering. Other researchers have described job satisfaction in behavioristic terms such as teacher willingness to select teaching as a career if they had the opportunity to begin again and choose a career again. Throughout the literature, the most common approach to

understanding job satisfaction has been to apply the principles of motivation theories (Ulricksen, 1996).

Skaalvik and Skaalvik (2011) observed that teacher job satisfaction “has been studied as both: (a) a facet-specific job satisfaction measuring the extent to which teachers are satisfied with specific aspects of their job, and (b) an overall sense of satisfaction with the job” (p. 1030). Indeed, job satisfaction can be examined in terms of specific elements of the job (e.g., salary, achievement, interpersonal relationships, administrative policies and practices) with which an employee may be satisfied with one aspect of their job and dissatisfied with another, or as an overall feeling related to one’s position or career (Grady, 1984). Given these definitions, it is reasonable to conceptualize teacher job satisfaction with respect to teachers’ affective reaction to aspects of their work, or to their teaching role (Skaalvik & Skaalvik, 2011). With respect to teachers, job satisfaction can be related to outcomes, such as teacher instruction, student achievement, and of particular relevance to this study, teacher retention and turnover, of which it has been found to be a strong predictor (NCES, 1997).

***Relationship between Job Morale, Job Involvement, Organizational Commitment, and Job Satisfaction.*** Since the definitions of job satisfaction all relate to attitudes about the job that the worker has at the present, it is important to differentiate the concept from several related constructs. Job satisfaction and job morale both involve emotions of workers, yet they differ in temporal emphasis. Job morale is more concerned with feelings related to future willingness to work towards organizational goals, while job satisfaction is more related to the present state of worker affect.

Job satisfaction should also be differentiated from job involvement. Job involvement reflects how dedicated or undedicated a worker is to their job. For example, a very dedicated worker may have stronger feelings of satisfaction or dissatisfaction related to their job, while a less dedicated worker may experience less intense feelings of satisfaction or dissatisfaction.

Another related term is organizational commitment which is the bond of connection that employees feel towards their organization which may be related to personal affect, personal monetary needs, or personal or social norms. While committed employees may be satisfied, this is not necessarily the case, employees could be very committed for monetary or job availability reasons, while still being unsatisfied.

***Relationship between Employee Motivation and Job Satisfaction.*** A relationship between the constructs of job satisfaction and employee motivation has long been suggested by previous scholars (Carrinus, Helms-Lorenz, Beijgaard, Buitink, & Hofman, 2012). Research in the area of motivation in the workplace is closely linked to the study of job satisfaction and while the concepts of job satisfaction and motivation are distinct concepts, they are closely related and sometimes used interchangeably, confused, or conflated (Tan, 2011). “Theories of motivation have often formed the basis of models and measures of job satisfaction” (Ghazi et al., 2013, p. 445). “Motivation and job satisfaction are often discussed side by side as it is expected that the extent that an individual is satisfied with his/her work directly depends on the presence of some motivational factors” (Golshan, 2011, p. 1).

Job satisfaction is an important part of the motivational process. While motivation is a process that activates goal-directed behavior that is influenced by

forward-looking perceptions regarding the relationship between performance and rewards, job satisfaction is influenced by more immediate affective feelings that are related to the past personal fulfillment achieved by workers experiencing various job activities and rewards (Ololube, 2006; Tan, 2011). Since job satisfaction is a significant factor associated with needs satisfaction it is often considered to be related to worker motivation – satisfied employees are more likely to be motivated, and motivated employees are more likely to describe their work in positive terms (Juozaitiene & Simon, 2011). When workers feel satisfied with their job, they are more likely to develop intrinsic motivation related to the nature of the job or the job itself.

“Theories of worker motivation address a model connecting job satisfaction, motivation and performance” (Tan, 2011, p. 9). Motivation has often been examined through the application of content theories and process theories. Content theories of motivation (e.g., Maslow’s hierarchy of needs theory [1954], MacGregor’s X and Y theory [1960], Alderfer’s ERG theory [1969], Herzberg’s motivation-hygiene theory [1959/1966], McClelland’s need theory [1961], etc.) assume a direct link between motivation and job satisfaction and focus on identifying the needs, relative strengths of individuals, and the goals individuals perceive in order to satisfy these needs. Process theories of motivation (e.g., Skinner’s reinforcement theory [1957], Heider’s attribution theory [1958], Vroom’s expectancy theory [1964], Adams’ equity theory [1965], Locke’s goal setting theory [1976], etc.) assume a more indirect link to job satisfaction and emphasize the process of motivation concerning the way the relationship between variables (e.g., motivation, satisfaction, performance) serve to initiate, direct, and maintain behavior. Content theories of motivation have more commonly been used in

relation to job satisfaction than process theories of motivation (Ghazi et al., 2013). “In particular, Herzberg’s two factor theory is essentially a theory of job satisfaction and Herzberg applied the content theory of motivation in his approach” (Ghazi et al., 2013, p.446). “The rationale behind current theories of motivation and job satisfaction is to provide a framework for organizations to be able to influence their employees, to motivate and increase the level of their enthusiasm about their job” (Golshan, 2011).

***Predictive Value of Job Satisfaction.*** While it would be challenging to ascertain whether job satisfaction will lead to job-related outcomes at the individual level (since motivational factors are personal and internalized), it can generally be assumed that job satisfaction will relate to levels of employee retention, morale, involvement, commitment, and motivation in an organization at large (Canrinus et al., 2012; Finster, 2013; Hui & Tsui, 2015). Tambunan (2016) observed, “There is evidence to prove that when teachers are satisfied with their jobs, they become committed to their work and therefore there is effectiveness in the work they do, thereby benefiting the students” (p. 119). Increased job satisfaction has been found to contribute to increased teacher motivation and productivity (Canrinus et al., 2012). Davis and Wilson (2000), through the use of correlation analysis, found that teacher motivation was significantly related to teacher job satisfaction. While recognizing the relationship between job satisfaction and other factors, many studies choose to focus on job satisfaction due to the belief that job satisfaction helps to account for these factors and that job satisfaction is a more easily measured construct (Crehan, 2016).

***Individual Perspective, Expectations, and Demographic Variability in Job Satisfaction.*** Job satisfaction is not only influenced by the organization and its associated

factors, but since individual employees can react differently to similar experiences, job satisfaction is by its very nature personal specific to individual perspectives. Leppanen (2011), citing Evans (1998), observed that teachers, in particular, can have very different and individualistic views and experiences of job satisfaction, which can vary even within the same school with respect to the same factors. Teachers experience relative perspectives, which mean that the views that teachers hold relative to their job are shaped by earlier work experiences or by general life experiences. Additionally, since so much of a teacher's day is spent behind a closed door interacting with students according to student relationships formed in a specific unique classroom environment, teachers can have very different perceptions of experiences within the school.

Employee realistic expectations are defined towards a job based on beliefs about reasonable outcomes. Teacher comparisons of their present situation with their past experiences has a significant impact in shaping levels of job satisfaction. When realistic job-related employee expectations are met, employees are much more likely to express job-related satisfaction (Leppanen, 2011).

Various demographic subcategories of workers may theoretically experience different levels of job satisfaction based on a set of experiences. As such, demographic factors of employees may be examined in a study of job satisfaction in an organization. It is possible that individual employees may react very differently based on their characteristics, background, and expectations (e.g., age, gender, educational level, experience).

**Potential for Teacher Dissatisfaction and Satisfaction.** The school work environment has many elements unlike those of other typical work settings. The whole set

of interpersonal relations with students, parents, other teachers, and school administrators is unique. The compartmentalization of education results in most teachers doing the majority of their teaching behind closed doors, unobserved, and unsupported by their colleagues. The production element of teaching (learning) is less visible than many other professions leading to less immediate feedback and evidence of success. Within the context of this unique work setting, the retention of teachers has been influenced by two types of factors, those that cause dissatisfaction with teaching leading to teachers leaving the profession, and those that satisfy and motivate teachers to remain in the teaching profession (Winn, 2006).

***Potential for Teacher Job Dissatisfaction.*** Some aspects of a teacher's job can be negatively perceived by the teacher. Teachers are human beings that possess various needs that need to be satisfied, and failure to have basic needs satisfied can potentially lead to teacher frustration, nonchalant attitude towards work, and rebellion (Ololube, 2006). Teachers often suffer from pressure, stress, and fears, which can contribute to job dissatisfaction. The occupation of teaching has been cited on lists ranking the most stressful occupations. In addition to the stress experienced in daily instruction and interaction with students through motivating and encouraging learning, diagnosing student academic and behavioral student needs, and adjusting instruction accordingly, teachers experience stress related to interactions with parents, administrators, and other teachers, and due to other duties including required reports, lesson planning, curriculum planning, and sponsoring extracurricular activities that necessitate working hours outside of the typical workday. The abundance of responsibilities and relatively low salary of teachers can contribute to job dissatisfaction (Juozaityene & Simon, 2011).



Because the production element in teaching (learning) is less visible than other professions, one of the major obstacles to satisfaction that teachers face is a lack of ongoing tangible evidence of success, and while achievements are less immediately measurable, the process is open to criticism by the entire community (Strachan, 1975). Current trends in education suggest that teachers are less satisfied with their jobs as compared to their levels of satisfaction a few years ago (Agnihotri, 2013; Çalik, Sezgin, Kavdaci, & Kilinc, 2012). Teachers may realize a diminished sense of fulfillment and satisfaction from the modern classroom (Kitchel et al., 2012; Wildman, 2015). The Metlife Survey of the American Teacher (Markow, Macia, & Lee, 2012) found that teacher satisfaction levels dropped to the lowest level in 20 years (44%) while the percentage of teachers saying they are fairly or very likely to leave the profession reached a high (29%).

***Potential for Teacher Job Satisfaction.*** Despite the challenges of the profession, teaching has significant potential to provide job-related satisfaction. Like most professions, teaching can provide the necessary compensation to meet the basic needs of teachers. Beyond material needs, most teachers take their commitment to their students, instruction, and schools very seriously because they know the important role that they play in students' lives. Many teachers enjoy being role models for students and work hard to provide inspiration and support for students. The importance of the work and the intellectual challenges faced by teachers may contribute to teacher job-related satisfaction. The responsibility and autonomy related to classroom instruction may also be invigorating to teachers. The sense of achievement that teachers experience when students experience success and develop confidence in their abilities can be very

rewarding. Teachers also may enjoy developing relationships and collaborating with students and other teachers to accomplish learning objectives. Teachers also have the potential to cultivate personal and professional growth as they hone their craft (Fulcher, 2015).

**Significance of Teacher Job Satisfaction in Schools.** While nearly every teacher works in order to satisfy basic needs, he or she also continually seeks satisfaction in the form of the personal and professional fulfillment. In the context of teaching, job satisfaction is the ability of a teaching position to meet the teacher's basic needs and to improve the teacher's perception of their teaching performance and the sense of fulfillment obtained from the work (Ololube, 2006).

Teacher job satisfaction is critical to the success of teachers, students, schools and school systems (Farthing, 2006). The National Center of Education Statistics (1997) noted a teacher's workplace satisfaction level may impact the quality of instruction provided to students, and subsequently, student learning outcomes. Shann (1998), citing Zigarelli (1996), observed that "a single, general measure of teacher satisfaction is a highly significant predictor of effective schools" (p. 68). "Teacher job satisfaction has been shown to a predictor of teacher retention, a determinant of teacher commitment, and in turn, a contributor to school effectiveness" (Shann, 1998, p. 1). Prior researchers have found a correlation between teacher job satisfaction and turnover (e.g., Billingsley and Cross, 1992; Bobbitt, 1991; Finster, 2013; Skaalvik & Skaalvik, 2011). Teacher job satisfaction is an important part of teacher commitment to the teaching profession (Finster, 2013). Bozeman et al. (2013), citing Spear (2000), noted that policies designed to increase teacher retention are commonly based on the assumption that teachers will

remain in their positions when they are satisfied with both their job and the conditions associated with their job.

In a study of 385 secondary schools in the United States, Bozeman et al. (2013) noted the impact of job satisfaction factors on teacher retention. Wildman (2015) observed that Gardner (2010) found that teacher perceptions of the workplace have a direct effect on the retention and turnover of teachers. According to Nieto (2009), teacher attitudes, beliefs, values, and dispositions have a powerful influence on the reasons that teachers choose to teach and why teachers choose to remain in the teaching profession in spite of often difficult working conditions. Skaalvik and Skaalvik (2011), in a study of over 2,500 teachers in elementary and middle schools, determined that job satisfaction was predictive of motivation to leave the teaching profession while finding that lower teacher job satisfaction and increased motivation to leave are likely to affect teacher work engagement, interactions with students and colleagues, and the quality of teaching.

Societal expectations for schools to develop and transform students into citizens that can make positive contributions to the community place an even greater significance on the teacher's role. Teacher levels of job satisfaction have an impact not only on the instructional time that they spend in schools, but on the influence that they have in society at large. Teachers are role models, and the lasting influence that they have in modeling behavior to students in classrooms and to families in the community can have a significant formative influence. The job satisfaction of teachers can influence teacher motivation to put forth their best efforts in activities that serve to establish positive relationships with students, broaden student perspectives, and promote student learning

that contributes to the development of healthy individuals and societies (Gultekin & Acar, 2014).

Teacher work performance and professional identity are influenced by self-perception defined by the work context (Canrinus et al., 2012; Seniwoliba, 2013).

Teacher motivation to teach is influenced by overall satisfaction with classroom practices and instruction, the availability of resources, and salary, among other factors. School contextual factors that impact job satisfaction, teacher motivation, and self-efficacy must deserve close examination from administrators and policymakers. Job satisfaction is a primary concern for school administrators in light of the low rates of teacher retention in many schools and school districts (Wildman, 2015).

Factors that influence levels of teacher job satisfaction must be given careful consideration due to their relationship to motivation and organizational commitment (Agnihotri, 2013; Wildman, 2015). Within school districts, the commitment of a teacher to the organization relates directly to the way the teacher feels about the school, and how engaged the teacher chooses to become in school matters (Calik et al., 2012; Juozaitiene & Simon, 2011; Lam & Yan, 2011). A teacher who is satisfied with their job is more likely to exert maximum efforts towards teaching and other school related tasks (Wildman, 2015).

In general, the literature indicates that educator longevity and effectiveness are dependent on job satisfaction (Seegmiller, 1977). Since school improvement depends fundamentally on the improvement of teaching, finding ways to increase teacher job satisfaction should be a primary area of focus for educational administrators. Bogler (2001) observed:

The education mission seems to be dependent on the way teachers feel about their work and how satisfied they are with it. Therefore, it is not surprising that researchers suggest that “schools must give more attention to increasing teacher job satisfaction” (Heller, Clay, & Perkins, 1993, p. 75). (p. 665)

When teacher needs are satisfied, teachers are more likely to be motivated and are more likely to facilitate a supportive and engaging climate in the classroom. Teachers are best able to integrate their professional knowledge (content knowledge and pedagogy), interpersonal knowledge (human relationships), and intrapersonal knowledge (ethics and reflective capacity) when satisfied with the job (Ololube, 2006). As such, the identification of factors influencing teacher job satisfaction should be an important focus in attempts to increase teacher productivity, decrease teacher turnover, and increase teacher retention (Grady, 1984).

**Determinant Factors of Job Satisfaction.** Employees form their views of job satisfaction and dissatisfaction through both internal cognitive processes and external actions (Bozeman et al., 2013) that can be influenced by a variety of factors in the workplace (Ololube, 2006). Job satisfaction is largely driven by an individual’s subjective judgement of a job and can be seen as an emotional state that results from an individual’s appraisal of one’s job experiences. “Teachers’ perceptions of their occupation are highly significant in affecting their satisfaction from the job” (Bogler, 2001, p. 679). Ma (1999), citing Hoy and Miskel (1991) observed:

In educational settings, job satisfaction is a present and past-oriented affective state of like or dislike that results when an educator evaluates his or her work role” (p. 392). In their self-analysis, teachers use descriptors for job satisfaction that revolve around how they feel about coming to work each day and the sense of success, or lack of it, that they have for their performance when dealing with students (Taylor & Tashakkori, 1995). In the latter case, evidence of immediate success through clear indications of student learning is not usually possible; hence, the perceptions of teachers are often based on affective or subjective

judgements of the degree to which they have successfully taught instructional objectives. (p. 39)

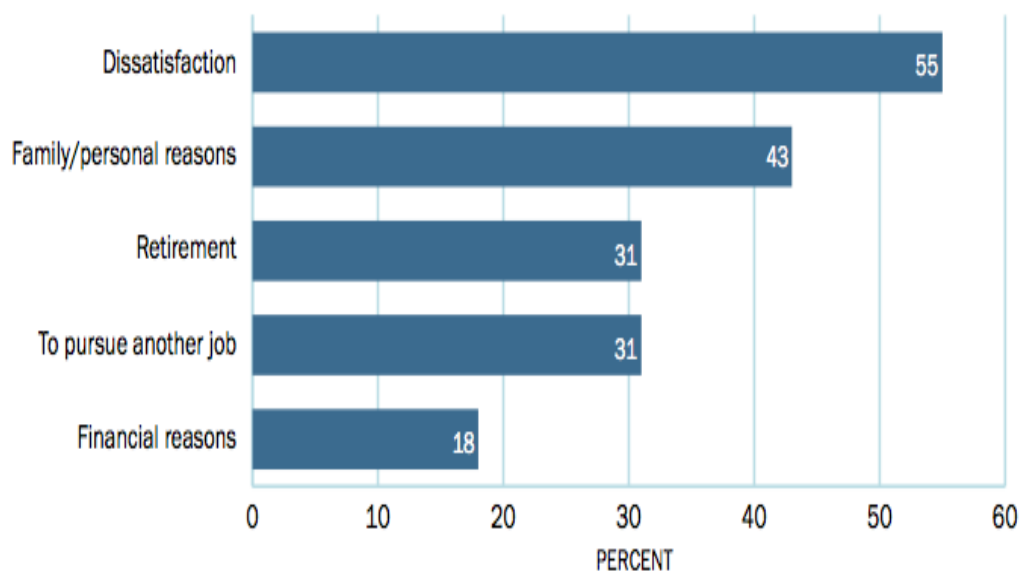
These perceptual factors attributed to contributing to teacher job satisfaction are also often attributed as contributing to teacher retention and turnover (Hirsch, 2004).

Since in many instances it is impractical to study each individual employee in large organizations due to time and monetary constraints, so consequently, studies of job satisfaction often utilize measures or indicators that have been found to frequently influence job satisfaction in typical individuals (Grady, 1984; Juozaitiene & Simon, 2011). Scholars have provided determinants (antecedents) of job satisfaction accounting for the combination of the psychological, physiological, and environmental factors that cause a person to be satisfied or dissatisfied with their job. There are a number of variations of the construct of job satisfaction in voluntary employee turnover models that include different accompanying determining factors (Finster, 2013).

Studies have examined some of the correlates of, the causes of, and the outcomes of job satisfaction and dissatisfaction. Studied factors are frequently grouped into the categories: working conditions (conditions experienced by teachers), school characteristics (student and school demographic factors), and teacher characteristics (teacher demographic factors) - these factors are also often grouped and categorized as extrinsic or environmental factors (e.g., hygiene factors), intrinsic or psychological factors (e.g., motivator factors), and teacher demographic factors (e.g., age, gender, etc.) (Crossman & Harris, 2006; DeFeo, Tran, Hirshberg, Cope, & Cravez, 2017; Finster, 2013). These factors have been linked to job satisfaction and dissatisfaction (Billingsley & Cross, 1992), which in turn, have been shown to influence retention and turnover (e.g., Billingsley & Cross, 1992; Bobbit, 1991) (see Figures 10 and 11). Levels of job

satisfaction have been correlated with the employee self-indicated propensity to leave their position and to actual turnover (e.g., Billingsley and Cross, 1992; Bobbit, 1991; Finster, 2013; Skaalvik & Skaalvik, 2011).

### Factors Teachers Report as Being Very Important for Leaving Teaching

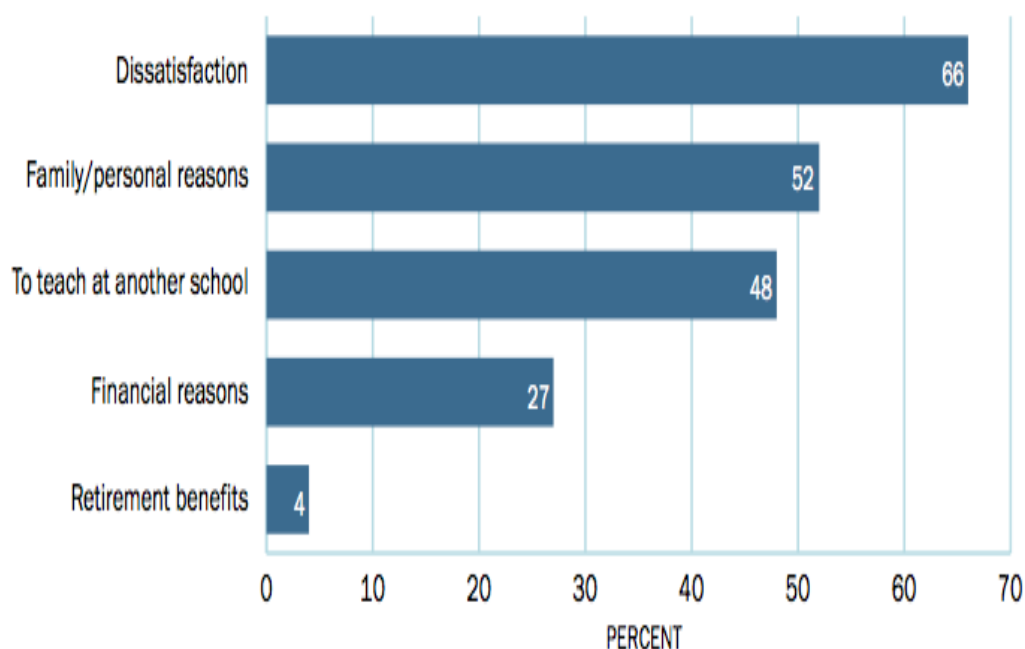


Source: Carver-Thomas and Darling-Hammond (2017)

Figure 10. Dissatisfaction as a top reason for teachers leaving.

**Working Conditions (Conditions Experienced by Teachers).** Teacher satisfaction with the working conditions in the school has been shown to influence both teacher job satisfaction and teacher retention (Borman & Dowling, 2008; Bozeman et al., 2013; Mont & Rees, 1996). The NCES (1997) found that the more favorable teacher working conditions are, the more the higher teacher job-related satisfaction is. Loeb et al. (2005) found that school working conditions are the best predictor of teacher turnover.

### Factors Teachers Report as Being Very Important Reasons for Moving



Source: Carver-Thomas and Darling-Hammond (2017)

*Figure 11.* Dissatisfaction as a top reason for teachers moving.

Working conditions include the factors: physical environment, workload, school leadership, available resources, and compensation and benefits (DeFeo et al., 2017). “Working conditions also include the sociocultural and political environments - both inside and outside the school - including parent and community support and engagement” (DeFeo & Tran, 2019, p. 4). Darling-Hammond (2003) noted that teacher perceptions of poor working conditions include: teaching in schools with large class sizes, rundown or unsanitary facilities, insufficient resources and supplies, and fewer administrative supports (Lyles, 2016). More than half of the teachers that participated in the Center for the Future of Teaching and Learning (2007) study noted that too little planning time, too frequent interruptions to instruction, nonessential meetings, too much paperwork, and not



allowing for enough teacher input for managing the day to day operations of the school as factors negatively impacting working conditions (Lyles, 2016). Poor working conditions for teachers are more likely to be present in low-income schools (DeFeo et al., 2017).

*Workloads.* Heavy or unmanageable workloads placed on teachers lead to teacher frustration, teacher burnout, and contribute to teacher turnover (Arens & Morin, 2016; DeFeo et al., 2017; Hakanen, Bakker, & Schaufeli, 2006; Lee & Ashforth, 1990). Hirshberg, Hill, & Kasemodel (2014) found that teachers who left their positions in rural Alaska more frequently cited that they were overwhelmed by the demands of their job. Feiman-Nemser (2003) found that new teachers are more likely to be placed in inappropriate teaching assignments. Algozzine, Gretes, Queen, and Cowan-Hathcock (2007) found that new teachers are more likely to be assigned heavier workloads. Carr (2009) and Darling-Hammond (2003) noted that new teachers are often faced with larger class sizes and fewer resources to address their needs. The Metlife Survey of the American Teacher (Markow et al., 2012) found that teachers with lower job satisfaction are more likely to report increases in class sizes.

*Hiring Practices.* The Center for the Future of Teaching and Learning (2007) found that poor hiring practices contributed to teachers wanting to leave their positions. Fantilli and McDougall (2009), noted that poor hiring practices include hiring teachers late in the hiring cycle and the tendency to assign new teachers to teach the most challenging students and classes. Darling-Hammond (1996) found inefficient recruiting practices in critical subject areas and hiring late in the cycle with inadequate attention paid to teacher qualifications to be contributing factors to teacher turnover. Monk (2007) observed that if an accomplished teacher leaves a rural area, the school administrators

may seek to hire a replacement with ties to the area, and who may stay longer, but that may not have the same credentials or accomplishment in teaching.

*School Administration Policies and Practices.* Ineffective or unstable school leadership contributes to higher rates of teacher turnover (DeFeo et al., 2017). Patrick (2007) observed:

Within the body of professional research, a distinct connection between administrative support and job satisfaction has been repeatedly supported (Anderman, 1991; Foels, Driskell, Mullen & Salas, 2000; NCES, 1997). Administrative support has been cited as the reason for being either satisfied or not satisfied (Davis & Wilson, 2000; Weasmer, 2002); feeling positively (Anderman, 1991), committed (Coladarci, 1992) and motivated related to work (Ashton & Webb, 1986; Ostroff, 1992); and choosing to leave (Hirsch, 2004; Ferguson, 2000; Morris, 2003) or remain (Hirsch, 2004) in the profession. (p. 60)

The National Center for Education Statistics (1997) found that teachers are more satisfied with teaching as a career when they receive support from their principal. The Center for the Future of Teaching and Learning (2007) found that 42% of the teachers reported a lack of administrative support as contributing to them wanting to leave the teaching. The National Center of Education Statistics (1997) in interviews with more than 55,000 teachers found a positive correlation between job-related satisfaction and dialogue with principals on instructional practices. Ma (1999) found that teachers are more satisfied with their job when they have discussions with school administrators regarding instructional practices, and are more dissatisfied with their job when they perceive a lack of support from school administrators. Anderman (1991) found, “Principals who promote a supportive environment among teachers, who effectively monitor the nature of the curriculum, who define their goals, and who carefully supervise teachers will promote an environment conducive to teachers who are satisfied and committed” (p. 21).

*Support from Colleagues.* The lack of adequate support for teachers, particularly new teachers, is also one of the predominant reasons that teachers choose to leave their positions. Ashiedu and Scott-Ladd (2012) noted school culture and elements of collegiality and support as indicators of teacher retention. Algozzine et al. (2007) found that new teachers wanted specific types of supports in their first year of teaching including: an earlier timeline for hiring, mentoring from veteran teachers for learning school policies and procedures, assistance locating resources for instruction, professional development related to incorporating state standards in lessons, and guidance in planning lessons and using effective instructional methods.

*Collaboration with Colleagues.* Collaboration in the work environment consists of two or more people working together on a work task. For teachers in a school setting, examples of collaboration may include event planning, curriculum development, program planning, and team-teaching. Collaboration provides meaningful opportunities for teachers to learn about pedagogy, plan instructional content, and develop collective collegiality (Finster, 2013). Ma (1999) found that schools with

cultures with characteristics expressed in terms of collegiality and collaboration generally are those types that promote satisfaction and feelings of professional involvement. . . . Other types of cultures that create, maintain, and reinforce isolation . . . actually contribute to teacher dissatisfaction. (p. 40)

Shann (1998) found that teachers in lower achieving schools were less satisfied with relationships between teachers than those in higher achieving schools. Firestone and Pennell (2012) observed that there are numerous studies that document a positive relationship between job commitment and collaboration.

*Autonomy and Participation.* Rosenholtz (1989) found that teacher autonomy to be a strong predictor of job commitment in a survey of over a thousand teachers in more

than seventy schools. The National Center for Education Statistics (1997) found that public school teachers with higher levels of autonomy reported a higher level of commitment and workplace satisfaction. While autonomy is based on decision-making in the workplace, participation refers to teacher input and control over strategic decision-making (Finster, 2013). Firestone and Pennell (2012) observed that research supports a link between participation and job commitment. Lynch (2012) cited the lack of teacher empowerment, and Rice and Schneider (1994) cited the lack of involvement in decision making, as factors contributing to teacher dissatisfaction with working conditions.

*Relationships with Students, Student Behaviors, and Student Discipline.*

Relationships with students, student behaviors, and student discipline issues have been cited as factors contributing to why teachers choose to leave their positions. Patrick (2007), citing Dinham (1985), Morris (2003), NCEES (1997), and Shann (1998), found that “within the extant literature, a distinct connection has been established between student behaviors and teacher workplace satisfaction.” Kim and Loadman (1994) and Shann (1998) found that teachers reported their relationship with students to be the most important factor contributing to their workplace satisfaction, while also being the factor with which teachers were least satisfied (Shann, 1998). Patrick (2007), citing Goodwin (1987), noted that due to isolation from other adults (in the classroom), teachers demonstrate a greater reliance on student interactions to achieve professional satisfaction. Shann (1998) reported that when students met some of the interpersonal needs that teachers had, teachers were more satisfied and effective in the classroom. Farrugia (1986) found that positive influence that teacher can have on students through the

teacher-student relationship and instances of success teaching challenged or unmotivated students contributed to teacher commitment to the occupation.

Managing student behavior is one of the most challenging aspects of teaching for teachers entering the profession (Sieberer-Nagler, 2016). Ingersoll (2001) found that student discipline problems were often cited by teachers as one of the reasons they were dissatisfied with their jobs. Greenlee and Brown (2009) found that classroom management was one of the two most often cited reasons for leaving the profession. Morris (2003) reported that teachers responded with higher rates of job-related satisfaction in schools with more favorable student behavior, finding that student behavior accounted for 18% of the variance in teacher job-related satisfaction. The NCES (1997) found that teacher job-related satisfaction is higher in schools where apathy, misbehavior, and violence were less prevalent. Greenberg, Putman, and Walsh (2014) found that teachers who have structured classrooms where student behavior is less challenging tend to feel more successful and that teachers are more likely to stay in teaching positions where they feel successful.

*Professional Development.* Access to adequate professional development opportunities is another factor that contributes to teacher job satisfaction. Rosenholtz (1989), noted that professional learning opportunities predicted job commitment. Darling-Hammond (1996) noted that inadequate investment in teacher training contributes to new teachers leaving after their first year. Carr (2009) found that training that is relevant for new teachers is what is desired by new teachers. Fantilli and McDougall (2009) found teachers sought training in communication with parents. Darling-Hammond (2003) found that teachers wanted training in selecting resources for

instruction. Easley (2000) found that professional development should be a continuous process with ongoing support that meets the needs of the teacher as opposed to a piecemeal approach.

*Physical Environment.* Shell (2015), citing Klitzman and Stellman (1989), Carlopio (1996), Schneider (2003), and Fisk (2011), found that evidence supports the influence of the physical environment (air quality, lighting, temperature, acoustics, and available/organization of space) on teacher performance, job satisfaction, and attrition. Morris (2003) examined the physical aspects of schools to attempt to ascertain their impact on school work atmosphere. The researcher found that poor facility maintenance and poor ventilation systems corresponded with poor teacher and student health, which subsequently negatively affected student behavior and levels of teacher job satisfaction. Teacher job satisfaction was higher in schools that received high ratings for the physical environment (Morris, 2003).

*Access to Resources.* Also cited as a source of teacher dissatisfaction is the lack of access to adequate resources (Feiman-Nemser, 2003). Quinn and Andrews (2004) observed that beginning teachers need assistance in locating and ordering instructional materials. The Center for the Future of Teaching and Learning (2007) found that 42% of teachers leaving the profession cited a lack of textbooks, insufficient technology, and a shortage of basic classroom supplies as contributing factors as to why they chose to leave.

*Salaries.* Low salaries are predictive of higher teacher turnover (Loeb et al., 2005). Darling-Hammond (2003) found that new teachers' salaries were approximately 20% lower than the salaries of other professionals with equivalent levels of education and

training. Teachers cited low wages as a reason for leaving the teaching profession in studies by Ingersoll (2003), Fantilli and McDougall (2009), Algozzine et al. (2007), Alliance for Excellent Education (2008), and Lynch (2012). According to NCES (1997), while less than half of teachers reported that they are satisfied with teaching salaries, less than five percent actually leave the teaching profession due to low salaries. Hanushek et al. (2004) found that a significant increase in teaching salary (25-43%) would be necessary in order to retain teachers in low-achieving, high minority schools at rates similar to suburban schools and concluded that improving teacher working conditions may be a more practical approach to improving teacher retention. Provasnik, KewalRamani, Coleman, Gilbertson, Herring, and Xie (2007) found, on average, rural teachers earned lower salaries than teachers in towns, suburbs, and cities. In Alaska, teacher salaries are better than found in many states and the salaries in rural Alaska are typically higher than in the rest of the state (DeFeo et al., 2017). Only approximately 14% of teachers in positions in rural Alaska cited that they were dissatisfied or very dissatisfied with their pay (DeFeo et al., 2017; Hirshberg, Berman, DeFeo, & Hill, 2015).

*Efficacy and Sense of Achievement.* Teacher efficacy is unique in that while being a teacher characteristic, unlike teacher demographic variables (e.g., age, gender, years of service), it is directly influenced by working conditions. Teacher efficacy relates to a teacher's sense of professional competency, effectiveness, and ability to experience a sense of achievement. Professional efficacy can be expressed in three primary ways: (a) a belief by teachers that they possess the necessary content knowledge; (b) a belief by teachers that they have access to the necessary instructional skills; and (c) a belief by teacher's in their ability to use content knowledge in conjunction with instructional

strategies to enable students to achieve according to the academic standards of the course

(Ma, 1999). Patrick (2007) found:

The extant literature further supports the notion that teacher self-efficacy contributes to job satisfaction (Ross, 1998), commitment to the profession, and the choice to remain within the profession (Coladarci, 1992; Glickman & Tamashiro, 1982; Shin & Reyes, 1995), as well student achievement and motivation (Ross, 1998; Shann, 1998).

Patrick (2007), citing Chaplain (1998), Evans, (1997), Quaglia (1991) and Stempien and Loeb (2002), noted that teacher beliefs with respect to self-efficacy correlate with job-related satisfaction, and teachers who perceive themselves doing well, tend to be satisfied with their jobs, and teachers who experience a lack of self-efficacy tend to experience dissatisfaction. Gaziel (1986) noted the importance for teachers to experience a sense of achievement and observed that the extent to which teachers perceived that they improved the lives of students was a source of job-related satisfaction. Dinham and Scott (2000) found that teachers were most satisfied when helping students to develop positive attitudes and behaviors and realize academic achievement.

*School Characteristics (Student/School Demographic Factors).* Boyd et al. (2011) identified a strong relationship between teacher attrition and school contextual factors. Hanushek et al. (2004) found that teacher transfers from one school to another is better explained by characteristics of students than differentials in teacher salaries. The Metlife Survey of the American Teacher (Markow et al., 2012) found that teachers in schools with high parent engagement are more than twice as likely to say they are satisfied with their job (57% to 25%), while teachers with lower satisfaction were more likely to report students and families needing health and social services and students coming to school hungry. Ronfeldt (2012) found that teachers who had pre-service



placements in 'difficult to staff' school settings had lower retention rates than peers after later entering the workforce.

Researchers have found that schools with more poverty, higher percentages of minority students, and lower levels of academic achievement are more likely to have higher teacher turnover rates than their counterparts (Clotfelter, Ladd, & Vigdor, 2006; Guin, 2004). This disparity presents a challenge for schools in both facilitating student achievement and in hiring to fill teacher vacancies. When higher performing schools seek to address teacher turnover, these schools are more likely to attract a higher number of qualified candidates for vacant teaching positions. In contrast, lower performing, lower income, and more diverse schools tend to have teacher vacancies more frequently, tend to have fewer qualified applicants for teaching vacancies, and therefore may have to invest greater resources on the recruitment and induction of new teachers. This means that the per teacher costs are often higher in higher poverty districts and a higher proportion of scarce resources - time and money - must be diverted from teaching and learning (Barnes et al., 2007; Milanowski & Odden, 2007; Watlington, Shockley, Guglielmino, & Felsher, 2010).

Studies have examined the relationship between school characteristics such as school location and size (Ingersoll, 2001; Smith & Ingersoll, 2004). While there is some disagreement in the literature as to whether urban or rural schools experience greater turnover depending on how these terms are defined, teachers have been found to be more likely to leave positions in rural schools than suburban schools (DeFeo & Tran, 2019; Hammer et al., 2005; Miller, 2012; Monk, 2007). Smith and Ingersoll (2004) found that teachers that began teaching in small schools were more likely to switch schools than

teachers who began teaching in large schools. Teachers are more likely to choose to teach in schools near to where they grew up, near to where they attended college, or are near to their current home (Boyd, Lankford, Loeb, & Wyckoff, 2005; Finster, 2013).

*Teacher Characteristics (Teacher Demographic Factors).* Studies have examined the relationship between teacher demographic characteristics and teacher job satisfaction. While Billingsley and Cross (1992) found that work-related variables were a better predictor of job satisfaction and commitment for teachers than were demographic variables, Finster (2013), citing Ma (1999), Watson (1991), Goodlad (1984), Bolger (2002), and Meek (1998), noted that studies have found that teacher job satisfaction is related to age, gender, marital status, educational level attained, grade level taught, and teacher effectiveness.

*Age.* There is inconclusive evidence with regard to the influence of age on job satisfaction (Crossman & Harris, 2006). Herzberg, Mausner, Peterson, & Capwell (1957), in a review of 23 studies, identified a U-shaped relationship between age and job satisfaction, with job satisfaction starting high when employees began their jobs, dipping during the next few years of employment, and then rebounding after a few years and steadily increasing throughout the remainder of their careers. According to Chen (1985), Hulin and Smith (1978) found no clear U-shaped relationship to exist, while Bishop (1969), DiCaprio (1974), Tharpe (1975), and Anderson (1980) found a converse relationship between age and job satisfaction, and Glenn (1977) found a direct positive relationship between age and job satisfaction. Ingersoll (2001) found that the relationship between teacher age and turnover has consistently been found to follow a U-shaped curve with younger teachers having very higher rates of departure, those remaining 'settling in'

with turnover rates among in mid-career years declining, and then rising again as teachers approach retirement age.

*Experience.* There is inconclusive evidence with regard to the influence of age on job satisfaction (Crossman & Harris, 2006). Ma (1999), Perie and Baker (1997), and Poppleton and Riseborough (1991) found that more experienced teachers were less satisfied with their jobs than less experienced teachers. Greene et al. (2011) found a negative relationship between tenure and teacher job satisfaction. Ma (1999) also found that more experienced teachers were still less satisfied when changes in levels of teaching competence, administrative control, and organizational culture were introduced - suggesting that workplace conditions have little effect on more experienced teachers. Chen (1985) noted that while Fuller (1969), Campbell and Williamson (1974), Coates and Thoreson (1976), found that stressors for beginning teachers are different for beginning than experienced teachers, Cichon and Koff (1980), Jarratt (1983), and Garfield (1984) found no significant differences in job attitudes between new and experienced teachers. Ingersoll (2001) observed that the relationship between teacher experience and turnover in some analysis has been found to follow a similar U-shaped curve as has been observed with teacher age, with less experienced teachers having very higher rates of departure, those remaining 'settling in' with turnover rates among in mid-career years declining, and then rising again as teachers approach retirement age.

*Gender.* There is inconclusive evidence on the effect of gender on job satisfaction. Some studies have suggested that men and women exhibit similar levels of satisfaction, while others have found higher levels of satisfaction for female teachers (Crossman & Harris, 2006). Aytac (2015), in a metaanalysis of 59 studies, found an

insignificant difference in teacher job satisfaction based on gender. Finster (2013), noted that Watson (1991) and Ma (1999) found that female teachers had higher levels of job satisfaction than male teachers. Male teachers may be more likely than female teachers to leave the teaching profession permanently due to opportunities in fields other than education, while math, science and special education teachers tend to leave at higher rates due to burnout and more attractive job opportunities (Boe, Cook, & Sunderland, 1997; Grissmer & Kirby, 1992). However, Ingersoll (2001) found that male teachers were less likely to leave their positions than female teachers.

*Marital Status.* There is inconclusive evidence on the effect of marital status on job satisfaction (Crossman & Harris, 2006). Chen (1985), cited Lacy (1968) that found that there were no significant differences in attitudes between married and unmarried teachers, and Bevcar (1969) found that married first year teachers were more satisfied than unmarried beginning teachers. Goodlad (1984) found that married female teachers were more satisfied with their jobs than unmarried men and women. Of the 12 studies reviewed by Herzberg et al. (1957), three studies found married employees to be more satisfied than unmarried workers; one study showed that unmarried employees were more satisfied than married workers; and eight studies found no significant difference between the attitudes of married and unmarried employees. Kenmunto (2018) found that married secondary school teachers were significantly more satisfied with their job than single or divorced teachers.

*Educational Level Attained.* There is inconclusive evidence on the effect of educational level attained and job satisfaction. Herzberg et al. (1957) in review of 13 studies relating education to job attitudes, found three studies showed an increase in

morale as education increased; another five studies found that as educational level increased job morale decreased, and the remaining five studies did not find level of education to significantly influence employee job attitudes. According to Chen (1985), England and Stein (1976) found that higher educational levels to positively influence job satisfaction, and Cortis (1975) found that higher educational levels for school counselors' were related to higher job satisfaction. Podgursky, Monroe, and Watson (2004) found that teachers with higher ACT scores, and who graduated from more selective higher education institutions, were more likely to leave teaching.

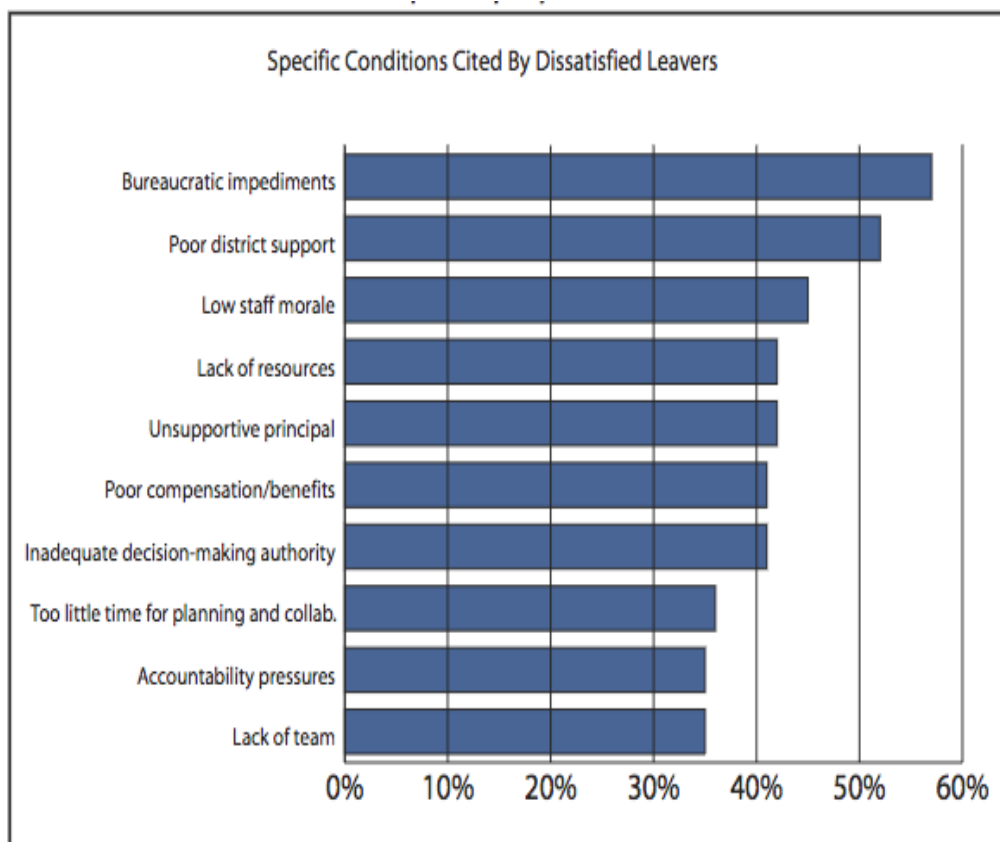
*Grade Level Taught.* There is some evidence that grade level of instruction may be predictive of teacher job-related satisfaction. Grady (1984), citing Cole (1977), compared the job satisfaction among elementary, middle, and high school teachers and found that elementary teachers were significantly more satisfied than secondary teachers. However, grade level trends with respect to job satisfaction may not be predictive of actual turnover. Ingersoll (2001) found that secondary schools had slightly lower rates of turnover than elementary schools, or schools with elementary and secondary combined.

*Teacher Quality.* Teacher quality is predictive of teacher job-related satisfaction, retention and turnover. Finster (2013), citing Boyd (2007), Goldhaber (2007), and Rivkin et al. (2005), noted that research suggests that more effective teachers tend to remain teaching, but gravitate to specific schools. However, early-career teachers with higher IQs, GPAs, and standardized test scores (Darling-Hammond, 1996), or those whose students make the greatest standardized testing gains are most likely to leave their positions for opportunities in other schools (Quartz, 2003).

*National Trends in Teacher Retention and Turnover Literature.* From the body of literature on teacher retention and turnover the following trends emerge: (a) many teachers who leave voluntarily indicate some type of dissatisfaction as their reason for leaving; (b) teachers who are less prepared are two-to-three times more likely to leave; (c) teachers in areas with high-poverty and/or in high-minority schools tend to leave at higher rates; and (d) teachers who report an unsupportive administration are more than twice as likely to leave as those who feel well-supported (Sledge, 2017; Sutchter et al., 2016).

The Center for the Future of Teaching and Learning (2007) analyzed why teachers chose to leave their positions and found that the most commonly cited reasons for dissatisfaction by leavers were: bureaucratic impediments 57%, poor district support 52%, low staff morale 44%, lack of resources 42%, unsupportive principal 42%, poor compensation and benefits 41%, inadequate decision-making authority 41%, too little time for planning and collaboration 36%, accountability pressures 35%, lack of team 35% (see Figure 12).

The Center for the Future of Teaching and Learning (2007) also analyzed why teachers who stayed chose to remain in their positions. Among teachers who chose to remain in their positions, teachers reported being most satisfied with their: decision-making authority 72%, close professional relationships 64%, sense of team among staff 63%, the belief that they could make a difference in student lives 63%, supportive principal 61%, appropriate class assignments 60%, salary and benefits 60%, support from the district 59%, credential program coursework 58%, and respect from parents/community 57%.



Source: Center for the Future of Teaching and Learning (2007)

*Figure 12.* Specific conditions cited by dissatisfaction leaving teachers.

According to data gathered in a Learning Policy Institute analysis of the National Center for Education Statistics teacher survey in 2012-2013 the most commonly given reason for teachers leaving the profession was dissatisfaction with factors directly attributable to the working conditions - 55% of teachers cited dissatisfaction. Among the 55% dissatisfied with working conditions, testing and accountability measures (25%), followed by concerns with the school administration (21%) were the most commonly cited factors for dissatisfaction. Following dissatisfaction with working conditions, family and personal reasons (43%), the desire to pursue another job or career (31%),

retirement (31%), financial reasons (18%), and retirement benefits (4%) were the next most frequently cited reasons for teacher decisions to leave the profession.

Carver-Thomas and Darling-Hammond (2017) examined the National Center for Education Statistics teacher survey data and found that after controlling for variability in other factors, teacher preparation, administrative support, and salaries were important factors in predicting teacher turnover. They also found that teacher turnover was higher for teachers in small schools than in schools of other sizes. They found that teachers who entered the profession through an alternative certification program were 25% more likely to leave their schools than were teachers who completed a traditional certification program. Teachers who strongly disagreed that they had supportive administrators were more than twice as likely to leave as those who felt supported. While differences in starting salaries were not a significant factor in teacher retention, teachers in districts with the highest paying salary scales were found to be less likely to leave their schools and less likely to leave the profession (Carver-Thomas & Darling-Hammond, 2017).

By collecting and analyzing data from teachers about their satisfaction and dissatisfaction, schools and districts are better able to construct and implement sound retention strategies that will be effective in the context of education. Through assessing the teaching and learning conditions in the local context, school districts can be made more responsive to the needs of their teachers and address specific challenges in the retention of teachers (Center for the Future of Teaching and Learning, 2007).

***Teacher Retention and Turnover in Rural Areas.*** Rural schools and school districts face many challenges, including state and federal funding inequities that favor larger schools, competitive disadvantages in recruiting and retaining highly qualified and



effective teachers, and inefficiencies in marshalling resources due to small enrollments and geographic isolation (Culbertson & Billig, 2016). Declining populations, school closures, school consolidation, and a declining economic base and economic opportunities in some rural communities present challenges for rural residents and schools (Montgomery, 2010).

Harmon (2001) and Harmon, Gordanier, Henry, and George (2007) found that rural school districts face many similar teacher retention challenges that urban and suburban school districts do, but they may have access to less personnel and funding to address these challenges. Stephens (1998) noted that because rural schools are smaller than their urban and suburban counterparts, with less financial resources, and less administrative support services, their ability to adequately address teacher retention challenges in practice is more limited (Culbertson & Billig, 2016; Lyles, 2016).

While the research on teacher retention in rural appears to be thin when compared to the body of research on teacher retention generally or in other areas (Collins, 1999), the rural-specific literature on teacher retention identifies five primary challenges that face rural schools and districts: lower pay, geographic and/or social isolation, difficult working conditions, limited access to community amenities, and the requirements for highly qualified teachers that are difficult to meet in a rural context (Montgomery, 2010). These factors can place rural schools at a competitive disadvantage when seeking to recruit and retain effective teachers (McClure & Reeves, 2004).

*Lower Pay.* McClure and Reeves (2004) noted that teachers in rural schools tend to earn lower pay when compared to teachers in urban and suburban areas. Jimerson (2003) observed that rural states tend to pay teachers less than more populous states, and

within states, rural school districts tend to pay less than urban and suburban school districts. Holloway (2002) found that, salary alone may not guarantee that a teacher will stay in an isolated region (Montgomery, 2010).

*Geographic and Social Isolation.* Geographically isolated schools tend to have greater difficulty in attracting and retaining new teachers (McClure & Reeves, 2004). The geographical isolation of rural school districts results in decreased opportunities for social and cultural activities that teachers typically have access to in urban and suburban areas (Lyles, 2016). Remote rural schools can have difficulty attracting teachers; and while rural schools that are located relatively close to suburban districts are often able to attract teachers, they tend to lose these teachers to suburban school districts once they have gained experience (Montgomery, 2010). Schwartzbeck, Prince, Redfield, Morris, and Hammer (2003) found that lower salaries, social isolation, and geographic isolation were three factors that superintendents most cited in contributing to difficulties in attracting and retaining teachers, while urban teachers do not tend to identify isolation as a factor in decisions to leave their teaching positions (Miller, 2012; NCTAF, 2003).

The impact of isolation may be particularly felt in remote rural areas where great distances, geographic barriers, or transportation challenges make it difficult, time consuming, or costly to reach more populated and developed areas (Boylan et al., 1993; Hammer et al., 2005; Miller, 2012; Schwartzbeck et al., 2003). Remote rural areas tend to provide residents with few opportunities for shopping, fewer cultural activities (Boylan et al., 1993), less access to health services (Boylan et al., 1993), and less access to adequate housing (Schwartzbeck et al., 2003) than urban and suburban areas (Miller, 2012).

Miller (2012) observed that rates of teacher retention in rural areas are higher when teachers have a stronger sense of connectedness to the community. This sense of connectedness to the community may stem from having family connections within the area or from having been welcomed and made to feel included as a part of the community by others in the community (Boylan et al., 1993; McClure & Reeves, 2004; Miller, 2012; Storey, 1993). Teachers who remain in rural areas are more likely to be committed to living in the area that they teach, which is influenced by a sense of connectedness and inclusion (Mongomery, 2010). Miller (2012) found that teachers are much more likely to remain in their initial teaching placement when the location is closer to their hometown, while the more distant their placement from their hometown, the more likely they are to leave or to quit teaching.

*Limited Access to Community Amenities.* Surveys of rural school administrators and teachers have found that a lack of community amenities are frequently reported as obstacles to recruiting and retaining high quality teachers (Hammer et al., 2005; Schwartzbeck et al., 2003). Community amenities include the economic and social opportunities offered, including access to other communities, professional networks, shopping, entertainment, housing, and employment (Miller, 2012). Miller (2012) found that economic and social amenities are predictive of rates of teacher retention and that schools in rural communities with more amenities or that are closer to urban areas have an easier time retaining teachers than schools in rural areas with less access to these amenities. These findings suggest that additional resources should be directed towards creating policies aimed at improving rural teacher retention, particularly in rural areas that are more geographically isolated from access to community amenities (Miller, 2012).

*Difficult Working Conditions.* As previously discussed, a number of studies have found that poor working conditions in schools are often reported as primary factors why teachers choose to leave the teaching profession (Charlotte Advocates for Education, 2004; Luekens, Lyter, Fox, & Chandler, 2004). While it is true that some of these working condition issues are not as common in rural schools as elsewhere (e.g., class sizes can be smaller in rural schools, and discipline issues may be less common than in urban areas), rural schools can also face some unique challenges (Montgomery, 2010).

Many rural schools and school districts, particularly ones in remote rural areas, serve a large percentage of students from economically challenged households, which impacts revenue sources for schools and impacts student academic outcomes (Culbertson & Billig, 2016). Culbertson and Billing (2016) found that rural school districts serve a larger percentage of students living in poverty than urban and suburban school districts if urban and rural schools were combined to form a ‘non-rural’ category. Office of Special Education (1995), citing Capper (1990), found that the lower the income level of the community, and the more rural the community, the lower the expectations that teachers had for students.

Teachers in many small rural schools must teach multiple disciplines due to low student enrollment and the need to maximize instructional resources. These teachers may need to complete the coursework and tests for multiple endorsements, unlike teachers in urban or suburban schools, who specialize in one area (Jimerson, 2004; Reeves, 2003). Teachers teaching classes out of their endorsed subject area are much more common in small rural high schools, which cannot afford to hire teachers specifically endorsed to teach one or two classes (Montgomery, 2010). Since teachers in small rural schools often

have more classes to prepare for, and may have to sponsor more extracurricular activities, they consequently have greater workloads while receiving less pay for their work than teachers in suburban and urban schools (McClure & Reeves, 2004).

The U.S. Government Accountability Office (2004) found that rural school district officials reported that a limited availability of professional development opportunities for teachers made recruiting and retaining highly qualified teachers more challenging. Even when professional development opportunities are available, the limited availability of substitute teachers in rural school districts can make it more difficult to authorize teachers to attend trainings (Montgomery, 2010).

*Requirements for Highly Qualified Teachers.* According to the U.S. Department of Education (2002), a highly qualified teacher is a teacher possessing state teacher certification, a bachelor's degree or higher, and demonstrated competency in all subject areas they teach. Rural schools have a more difficult challenge in meeting this hurdle than urban and suburban schools that have larger and more diversified teaching staffs, which can serve to magnify the already existing competitive disadvantage for rural, hard-to-staff, low-income, low-resource schools (Jimerson, 2003; Lyles, 2016; Southeast Center for Teaching Quality, 2004).

***Teacher Retention and Turnover in Alaska.*** In Alaska, continuously high levels of certificated educator turnover (teachers, counselors, principals, school district administrators, superintendents) adversely impacts student learning, school district stability, community, and public support for education” (Adams & Covey, 2018, p. 1). While many of the national trends in teacher retention and teacher turnover are relevant to Alaska, the state also has its own unique trends with respect to teacher retention and

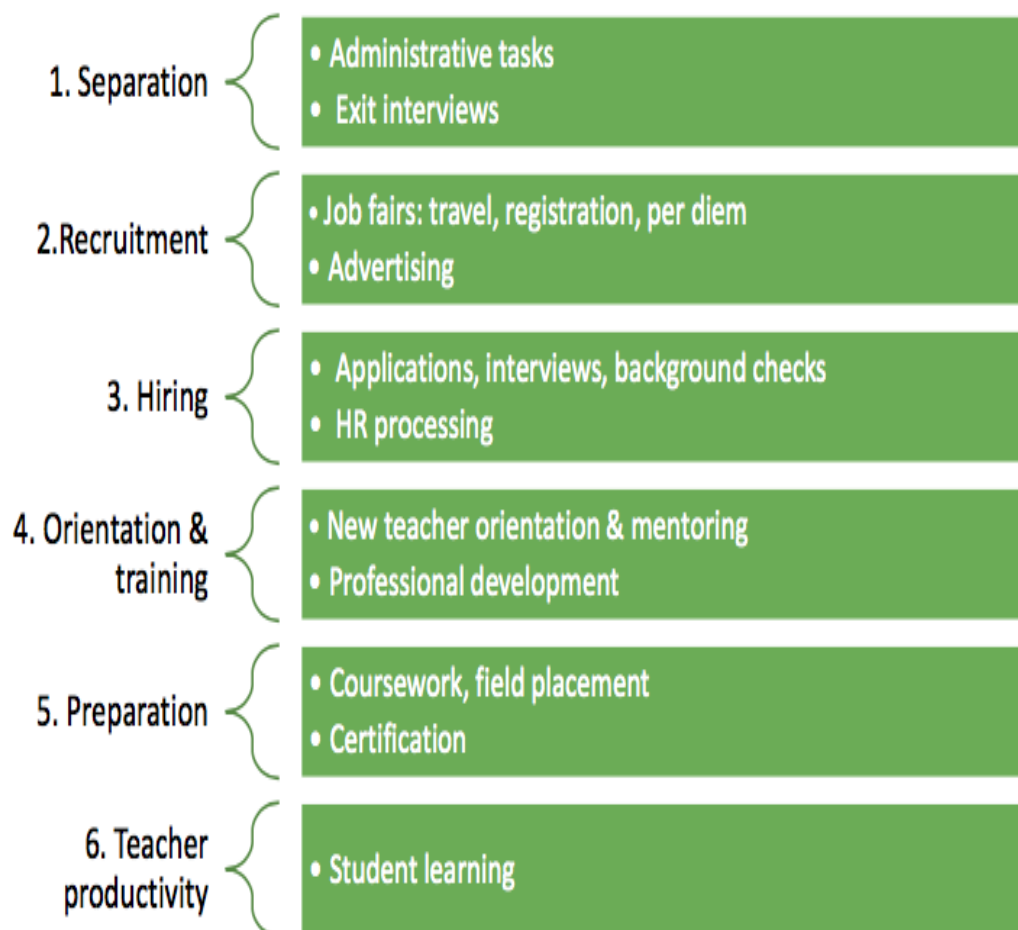
teacher turnover. An exploration of trends in teacher retention and turnover in Alaska, and particularly rural Alaska is necessary for the context of this study.

*The Costs of Teacher Turnover in Alaska.* More recently, there has been a growing number of efforts to identify and track the costs involved in teacher turnover (Barnes et al., 2007; Milanowski & Odden, 2007). In order to determine the cost of teacher turnover, a school district needs to be able to collect and connect teacher, school, and cost information. This can prove challenging because many small school districts in Alaska collect data by hand, and many districts with databases do not document the costs associated with teacher turnover in any systematic way (Barnes et al., 2007).

Despite the challenges in assigning a direct cost to teacher turnover, it is estimated that teacher turnover costs the state of Alaska over \$20 million annually and on average costs school districts over \$20,000 for each teacher that leaves the school district and needs to be replaced (DeFeo et al., 2017). DeFeo et al. (2017) studied the costs of teacher turnover in Alaska and breaks the costs of teacher turnover into six general categories that account for the cost of teacher turnover: separation costs, recruitment costs, hiring costs, orientation and training costs, performance productivity costs, and preparation costs (see Figure 13). Among the most costly factors involved in teacher turnover are orientation and training (estimated at 48% of the cost) and losses in performance productivity (estimated at 41% of the cost) (Synar & Maiden, 2012).

In addition to the costs of teacher turnover measured by these six categories, there are also indirect costs of teacher turnover that are difficult to quantify or measure. Examples of indirect costs of teacher turnover include: loss of morale when a respected

### Cost categories for teacher turnover



Source: DeFeo et al. (2017)

*Figure 13.* Cost categories for teacher turnover.

teacher leaves, impacts to school climate and culture, and loss of opportunities that an experienced teacher may have realized, but that a less experienced teacher was unaware (Karsan, 2007). Aside from the costs of teacher turnover realized by schools, school districts, and the state, there are also individual costs of turnover borne by individual teachers. Teachers invest time and money in their education and if they leave the profession, they lose an investment of both time and money.

The financial costs of teacher turnover in Alaska can prove to be a significant burden to school districts with high rates of teacher turnover. The total average costs of the four readily measurable categories (separation, recruitment, hiring, and orientation and training) results in a cost of replacing a teacher in excess of \$20,000 (see Figure 14) (DeFeo et al., 2017).

District-level teacher turnover expenditures by cost category

|   | Separation                                      | Recruitment            | Hiring   | Orientation & training  | Performance productivity | Preparation      |
|---|---|------------------------|--|---|--------------------------|------------------|
| <b>Our per-teacher cost calculation</b>       | <b>\$2,448.95</b>                               | <b>\$1,910.35*</b>     | <b>\$4,901.91</b>  | <b>\$11,169.86</b>  | (not calculated)         | (not calculated) |
| <b>Percent of our total cost calculation</b>  | <b>11.99%</b>                                   | <b>9.35%</b>           | <b>23.99%</b>  | <b>54.67%</b>   | .                        | .                |
| <b>Estimate includes</b>                      | Administrative, maintenance, and security tasks | Job fairs, advertising | Screening applicants, interviews, and administrative processes | Professional development, onboarding, and new teacher support | .                        | .                |
| <b>Our total calculated cost: \$20,431.08</b> |   |                        |  |   |                          |                  |

Source: DeFeo et al. (2017)

Figure 14. District-level teacher turnover costs.



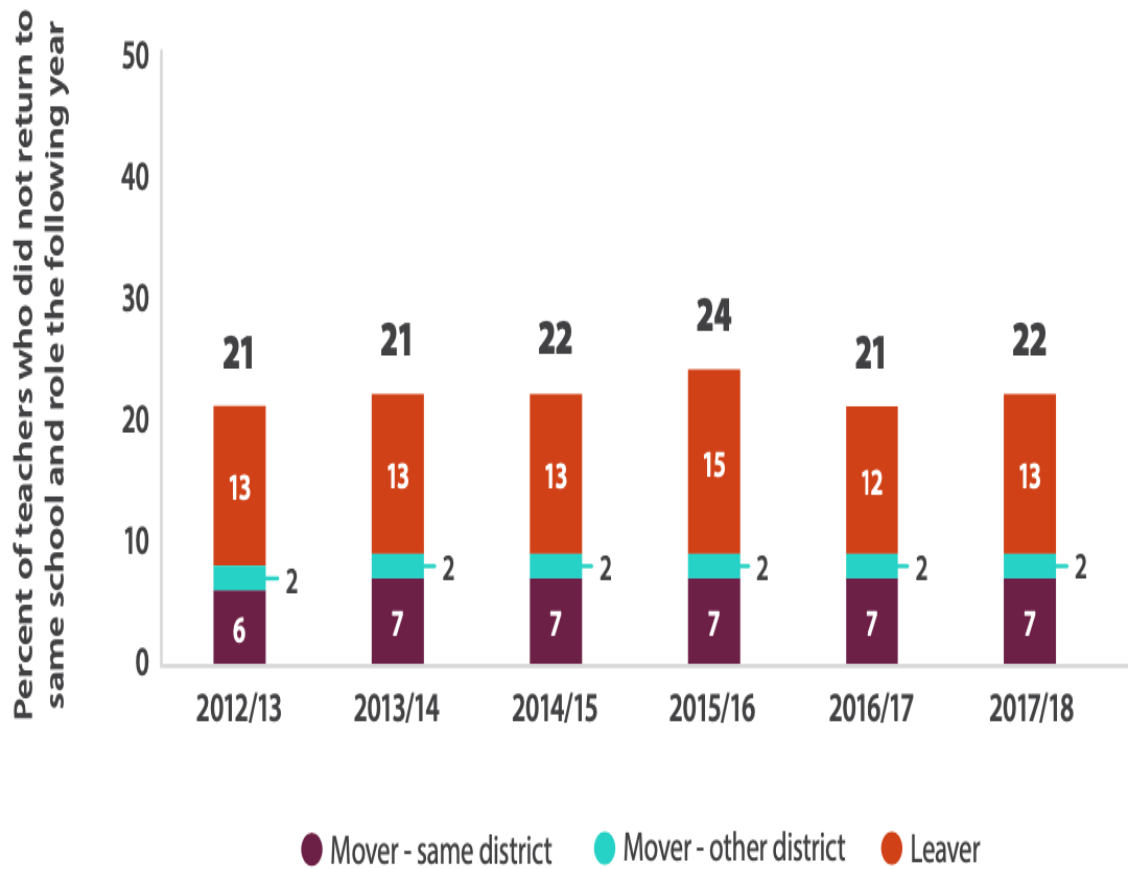
*The Impact of Teacher Retention and Turnover on Achievement in Alaska.* In addition to the economic costs of teacher turnover, teacher turnover imposes a cost in terms of student learning. High rates of teacher turnover can expose more students to inexperienced teachers (Darling-Hammond, 2003) and have negative implications for student and school performance (Ingersoll, 2001). The correlation between high rates of teacher turnover and low student achievement has been demonstrated in Alaska. In 2013, the percentage of students that were proficient on state reading assessments was 46.9% in Alaska's five highest turnover school districts, as compared with 85.8% in its five lowest turnover school districts (Hill & Hirshberg, 2013). Alaska's rural schools, which traditionally have the highest rates of teacher turnover, have the lowest rural high school graduation rate in the nation at 72.3% compared with the national average for rural schools of 88.7% (Leins, 2019).

*Alaska Teacher Supply and Demand.* It is possible to learn quite a bit by looking at the annual supply and demand of teachers across the state of Alaska. Studies in recent years have increased the available information regarding current trends in teacher retention and turnover in the state. Statewide data on teacher retention and turnover rates is available from the 2013-2014 hiring cycle which was commissioned by the Institute of Social and Economic Research (ISER) at the University of Alaska Anchorage (similar statewide data was also collected by ISER in the 2005-2006 hiring cycle) (Alaska Teacher Placement, 2017). Most recently, statewide teacher retention data is available from the 2012-2013 school year through the 2017-2018 school year, from a peer-reviewed report from the Regional Educational Laboratory Northwest, funded by the United States Department of Education's Institute of Education Sciences, entitled:

*Educator Retention and Turnover Under the Midnight Sun: Examining Trends in Teacher, Principal, and Superintendent Movement in Alaska* (Vazquez Cano, Bel Hadj Amor, & Pierson, 2019).

From an examination of this statewide data on teacher retention and turnover from Alaska's 494 schools, a number of trends in Alaska teacher retention and turnover can be identified. By far the largest state in terms of land area, Alaska is the seventh smallest in terms of student enrollment (approximately 115,000 students), and the smallest in terms of number of teachers (approximately 8,000 teachers). Approximately, 75% of the state's teachers serve the approximately 80% of the students located in urban, and urban fringe schools, while about 9% of students are located in rural hub schools, and 11% of students are located in rural remote schools (Vazquez Cano et al., 2019).

Since the 2005 ISER data set, Alaska teacher turnover has declined slightly, but not significantly, while school average daily membership (ADM) is projected to increase significantly in the state creating a greater demand for teachers. From the 2012-2013 school year, through the 2017-2018 school year, teacher turnover statewide has remained fairly steady over time, ranging from 21-24%, with most years hovering in the 21-22% range (see Figure 15). From the 2012-2013 school year, through the 2017-2018 school year, constituting the 22% on average of teachers who left each year - 7% of teachers moved schools within the same district, 2% moved to another school district, and 13% left the state entirely (see Figure 16). Among Alaska teachers employed in the 2017-2018 school year, 21% of all teachers were new to their school, and 12% of all teachers were new to their school and the K-12 education system in Alaska (see Figures 17 and 18) (Vazquez Cano et al., 2019).



Source: Vazquez Cano et al. (2019)

Figure 15. Teacher turnover by year in percentages.

| <b>Educator</b> | <b>Turnover type</b> | <b>2012/13</b> | <b>2013/14</b> | <b>2014/15</b> | <b>2015/16</b> | <b>2016/17</b> | <b>2017/18</b> | <b>Average</b> |
|-----------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Teacher         | Retained             | 79             | 79             | 78             | 76             | 79             | 78             | 78             |
|                 | Mover-same district  | 6              | 7              | 7              | 7              | 7              | 7              | 7              |
|                 | Mover-other district | 2              | 2              | 2              | 2              | 2              | 2              | 2              |
|                 | Leaver               | 13             | 13             | 13             | 15             | 12             | 13             | 13             |
| Principal       | Retained             | 76             | 72             | 71             | 67             | 77             | 75             | 73             |
|                 | Mover-same district  | 5              | 6              | 5              | 6              | 4              | 5              | 5              |
|                 | Mover-other district | 2              | 3              | 4              | 2              | 3              | 3              | 3              |
|                 | Leaver               | 17             | 19             | 21             | 25             | 17             | 17             | 19             |
| Superintendent  | Retained             | NA             | 75             | 60             | 81             | 77             | 75             | 74             |
|                 | Mover-other district | NA             | 8              | 4              | 6              | 4              | 6              | 5              |
|                 | Leaver               | NA             | 17             | 36             | 13             | 19             | 19             | 21             |

Source: Vazquez Cano et al. (2019)

*Figure 16.* Educator turnover by year in percentages.

| Category  | Description                        | Number of teachers | Percent teachers new to school | Number of principals | Percent principals new to school |
|---|------------------------------------|--------------------|--------------------------------|----------------------|----------------------------------|
| Overall   | Overall                            | 8,101              | 21                             | 425                  | 28                               |
| Salary  | Lowest earners                     | 2,028              | 41                             | 107                  | 39                               |
|   | Second quartile                    | 2,052              | 22                             | 108                  | 24                               |
|   | Third quartile                     | 2,012              | 13                             | 108                  | 30                               |
|   | Highest earners                    | 2,009              | 10                             | 102                  | 19                               |
| School-level percentage of students eligible for free or reduced-price lunch (FRPL) | Less than 25%                      | 1,019              | 17                             | 36                   | 28                               |
|   | 25–49%                             | 2,995              | 17                             | 115                  | 26                               |
|   | 50–74%                             | 1,199              | 21                             | 67                   | 25                               |
|   | 75–100%                            | 2,213              | 28                             | 148                  | 30                               |
| School-level percentage of students of color  | Less than 25%                      | 706                | 22                             | 42                   | 21                               |
|   | 25–49%                             | 3,082              | 16                             | 131                  | 22                               |
|   | 50–74%                             | 1,821              | 19                             | 69                   | 26                               |
|   | 75% or more                        | 2,492              | 29                             | 183                  | 34                               |
| School size (the number of students enrolled at a school)                           | Smallest (less than 25 students)   | 161                | 45                             | 41                   | 49                               |
|   | Small (25–49 students)             | 187                | 41                             | 27                   | 37                               |
|   | Medium small (50–100 students)     | 451                | 30                             | 48                   | 31                               |
|   | Medium (100–199 students)          | 1,121              | 24                             | 90                   | 39                               |
|   | Medium large (200–399 students)    | 2,541              | 23                             | 117                  | 17                               |
|   | Large (400 or more students)       | 3,640              | 17                             | 102                  | 19                               |
| Locale type   | Urban (on and off road)            | 4,050              | 19                             | 136                  | 15                               |
|   | Urban fringe (on and off road)     | 1,967              | 16                             | 94                   | 24                               |
|   | Rural hub/fringe (on and off road) | 981                | 28                             | 73                   | 33                               |
|   | Rural remote (off road)            | 1,103              | 34                             | 122                  | 42                               |

Figure 17. Teacher turnover in the 2017-2018 school year in percentages.

| Indicator  | Group                              | Number | Percent of all teachers |
|--|------------------------------------|--------|-------------------------|
| New to school, but not new to Alaska K-12 system | Overall                            | 750    | 9                       |
|  | Urban (on and off road)            | 368    | 9                       |
|  | Urban fringe (on and off road)     | 146    | 7                       |
|  | Rural hub/fringe (on and off road) | 121    | 12                      |
|  | Rural remote (off road)            | 115    | 10                      |
| New to school and Alaska K-12 system             | Overall                            | 983    | 12                      |
|  | Urban (on and off road)            | 400    | 10                      |
|  | Urban fringe (on and off road)     | 166    | 8                       |
|  | Rural hub/fringe (on and off road) | 158    | 16                      |
|  | Rural remote (off road)            | 259    | 23                      |
| Prepared in Alaska                               | Overall                            | 3,168  | 42                      |
|  | Urban (on and off road)            | 2,021  | 53                      |
|  | Urban fringe (on and off road)     | 681    | 37                      |
|  | Rural hub/fringe (on and off road) | 255    | 29                      |
|  | Rural remote (off road)            | 211    | 24                      |
| Held more than one position at the same school   | Overall                            | 1,479  | 18                      |
|  | Urban (on and off road)            | 896    | 22                      |
|  | Urban fringe (on and off road)     | 207    | 11                      |
|  | Rural hub/fringe (on and off road) | 146    | 15                      |
|  | Rural remote (off road)            | 230    | 21                      |
| Worked at one or more schools                    | Overall                            | 741    | 9                       |
|  | Urban (on and off road)            | 372    | 9                       |
|  | Urban fringe (on and off road)     | 135    | 7                       |
|  | Rural hub/fringe (on and off road) | 198    | 20                      |
|  | Rural remote (off road)            | 36     | 3                       |

Source: Vazquez Cano et al. (2019)

Figure 18. Teacher turnover in the 2017-2018 school year in percentages.

From the 2012-2013 school year, through the 2017-2018 school year, the highest rates of teacher turnover in Alaska were experienced in high poverty schools (31% of teachers leaving the school, 19% of teachers leaving the state), schools with the most students of color (29% of teachers leaving the school, 18% of teachers leaving the state), the smallest schools (47% of teachers leaving the school, 22% of teachers leaving the state), rural remote schools that were off the road system (46% of teachers leaving, 23% leaving the state), and schools classified as being located in the North region of Alaska (33% of teachers leaving the school, 23% of teachers leaving the state) (see Figures 19 and 20). Additionally, teachers who were new to Alaska (35% left), or new to their school (35% left), were much more likely to leave than teachers with two or more years in their school (19% left) (see Figure 21) (Vazquez Cano et al., 2019).

Alaska requires approximately 8,000 teachers working in schools each year to educate more than 115,000 students (Vazquez Cano et al., 2019). Nearly 90% of teachers in Alaska are Caucasian. While Alaska Natives are the largest minority population in the state (15% of the population), Alaska Natives constitute only about 5% of the educator workforce (see Figure 22) (Hill & Hirshberg, 2013). From 2008 to 2012, districts hired an average of 985 teachers each year, about 64% of whom were from outside Alaska (Alaska Teacher Placement, 2017; Hill & Hirshberg, 2013). In 2013, 1134 teachers were new to teaching in Alaska, while Alaska universities only graduate approximately 220 - 230 candidates, approximately 20% of the new teachers each year. Therefore, Alaska needs between 900 - 1000 teachers from outside the state each year (Hill & Hirshberg, 2013). The number of teaching positions required in the state of Alaska is projected to continue to grow through the year 2024 (Hill & Hirshberg, 2006) (see Figure 23).

| Category  | Level                             | Number of teachers across years | Average retention and turnover rates by category (percent) |                     |                          |        |          | Turnover rate (percent) |         |         |         |         |         |
|---|-----------------------------------|---------------------------------|--|---------------------|--------------------------|--------|----------|-------------------------|---------|---------|---------|---------|---------|
|   |                                   |                                 | Retained   | Mover-same district | Mover-different district | Leaver | Turnover | 2012/13                 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| School-level percentage of students eligible for free or reduced-price lunch (FRPL) | Less than 25%                     | 7,254                           | 83   | a                   | a                        | 11     | 17       | 16                      | 14      | 15      | 22      | 15      | 17      |
|   | 25-49%                            | 19,526                          | 81   | 6                   | 1                        | 11     | 19       | 18                      | 17      | 19      | 21      | 18      | 19      |
|   | 50-74%                            | 9,947                           | 78   | 8                   | 2                        | 13     | 22       | 20                      | 21      | 24      | 24      | 22      | 21      |
|   | 75-100%                           | 10,316                          | 69   | 8                   | 4                        | 19     | 31       | 30                      | 32      | 32      | 32      | 31      | 30      |
| School-level percentage of students of color  | Less than 25%                     | 6,381                           | 80   | 7                   | 1                        | 11     | 20       | 18                      | 18      | 20      | 24      | 20      | 19      |
|   | 25-49%                            | 18,511                          | 81   | 7                   | 1                        | 11     | 19       | 19                      | 16      | 18      | 21      | 18      | 18      |
|   | 50-74%                            | 10,658                          | 81   | 7                   | 1                        | 11     | 19       | 18                      | 18      | 20      | 21      | 19      | 19      |
|   | 75% or more                       | 14,413                          | 71   | 7                   | 4                        | 18     | 29       | 26                      | 29      | 30      | 31      | 28      | 30      |
| School size (the number of students enrolled at a school)                           | Smallest (fewer than 25 students) | 1,038                           | 53   | 18                  | 7                        | 22     | 47       | 50                      | 43      | 48      | 42      | 52      | 49      |
|   | Small (25-49 students)            | 1,201                           | 65   | 10                  | 6                        | 19     | 35       | 36                      | 31      | 32      | 36      | 39      | 34      |
|   | Medium small (50-100 students)    | 3,047                           | 69   | 7                   | 5                        | 19     | 31       | 32                      | 30      | 29      | 34      | 30      | 33      |
|   | Medium (100-199 students)         | 6,618                           | 75   | 5                   | 4                        | 17     | 25       | 24                      | 25      | 27      | 28      | 25      | 24      |
|   | Medium large (200-399 students)   | 15,547                          | 78   | 7                   | 1                        | 13     | 22       | 20                      | 20      | 22      | 24      | 20      | 22      |
|   | Large (400 or more students)      | 22,512                          | 82   | 6                   | 1                        | 11     | 18       | 17                      | 17      | 18      | 21      | 17      | 18      |

Source: Vazquez Cano et al. (2019)

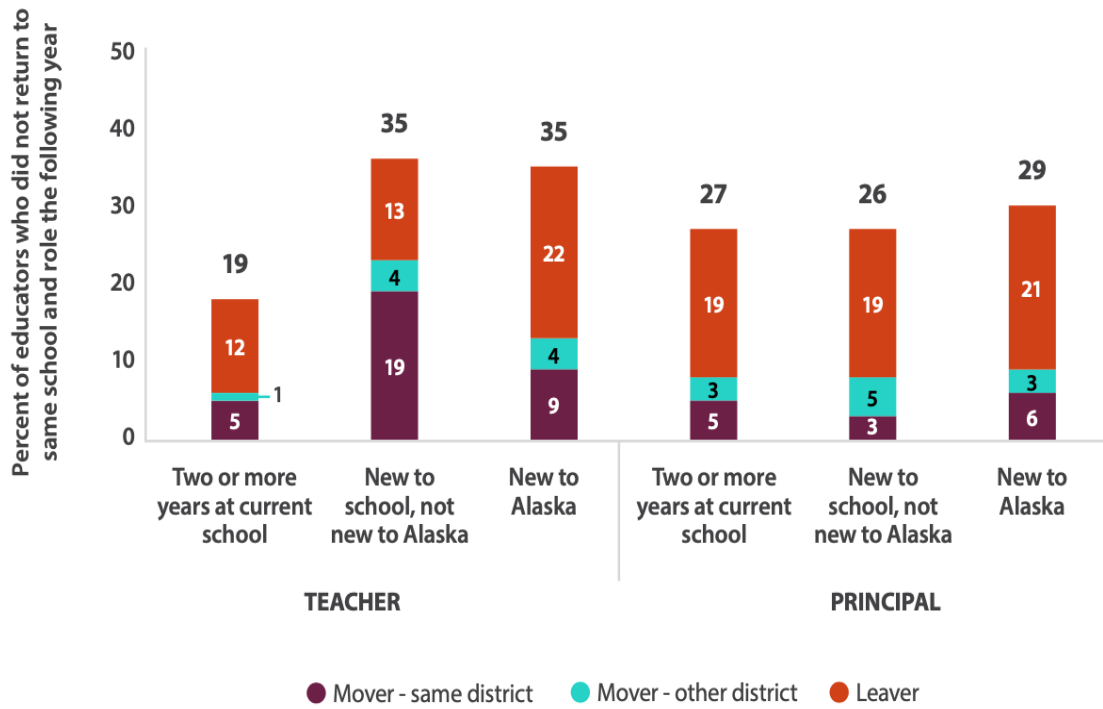
Figure 19. Teacher turnover by year in percentages.



| Category               | Level                              | Number of teachers across years | Average retention and turnover rates by category (percent) |                     |                          |        |          | Turnover rate (percent) |         |         |         |         |         |
|------------------------|------------------------------------|---------------------------------|--|---------------------|--------------------------|--------|----------|-------------------------|---------|---------|---------|---------|---------|
|                        |                                    |                                 | Retained   | Mover-same district | Mover-different district | Leaver | Turnover | 2012/13                 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| Broadband availability | No                                 | 8,159                           | 66   | 6                   | 6                        | 22     | 34       | 33                      | 33      | 35      | 35      | 35      | 34      |
|                        | Yes                                | 41,804                          | 80   | 7                   | 1                        | 12     | 20       | 19                      | 18      | 20      | 22      | 19      | 20      |
| Locale type            | Urban (on and off road)            | 25,042                          | 81   | a                   | a                        | 11     | 19       | 17                      | 18      | 19      | 22      | 16      | 20      |
|                        | Urban fringe (on and off road)     | 11,624                          | 81   | 7                   | 1                        | 12     | 19       | 21                      | 16      | 19      | 21      | 22      | 16      |
|                        | Rural hub/fringe (on and off road) | 5,978                           | 76   | 6                   | 3                        | 15     | 24       | 23                      | 24      | 23      | 26      | 24      | 26      |
|                        | Rural remote (off road)            | 7,319                           | 64   | 6                   | 6                        | 23     | 36       | 33                      | 35      | 38      | 37      | 36      | 36      |
| Alaska region          | Southeast                          | 5,372                           | 80   | 5                   | 2                        | 13     | 20       | 18                      | 21      | 20      | 22      | 18      | 21      |
|                        | Southcentral                       | 29,824                          | 81   | 8                   | 1                        | 11     | 19       | 19                      | 16      | 20      | 23      | 20      | 19      |
|                        | Southwest                          | 4,931                           | 68   | 5                   | 6                        | 21     | 32       | 28                      | 31      | 31      | 33      | 33      | 34      |
|                        | Interior                           | 6,496                           | 78   | 7                   | 2                        | 13     | 22       | 20                      | 25      | 20      | 23      | 19      | 24      |
|                        | North                              | 3,340                           | 67   | 4                   | 6                        | 23     | 33       | 31                      | 33      | 37      | 34      | 30      | 32      |

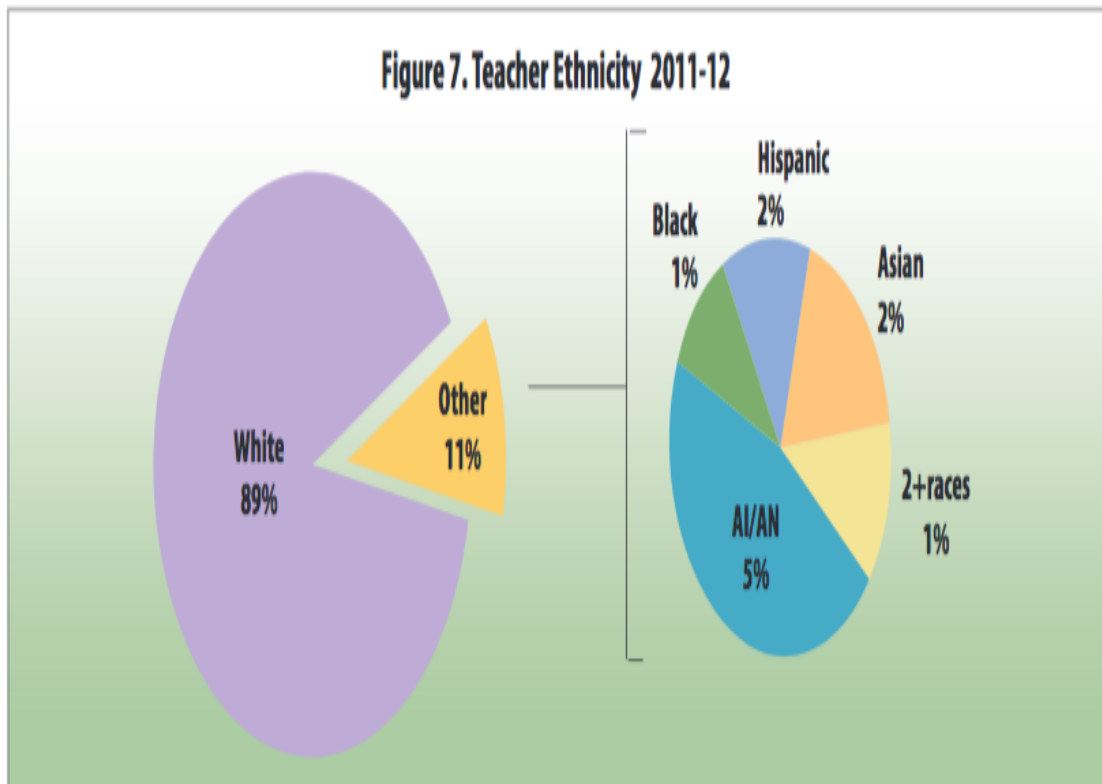
Source: Vazquez Cano et al. (2019)

Figure 20. Educator turnover by year in percentages.



Source: Vazquez Cano et al. (2019)

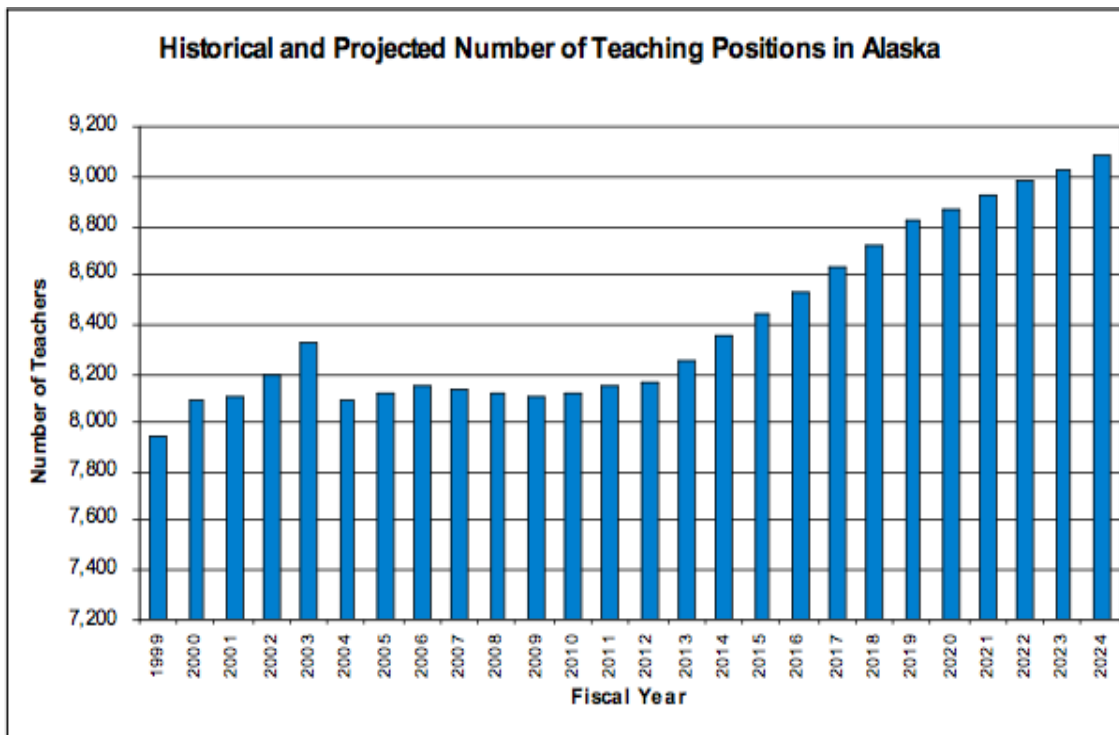
Figure 21. 2017-2018 educator turnover by type (in percentages).



Statewide, about half the students in Alaska public schools are White, but almost 90% of Alaska's teachers are White. Alaska Native and American Indian teachers continue to comprise only 5% of the teacher workforce and other minorities another 5%.

Source: Hill and Hirshberg (2013)

*Figure 22.* Alaska teacher ethnicity.



Source: Hill and Hirshberg (2006)

*Figure 23.* Historical and projected number of teaching positions in Alaska.

In Alaska, one of the most significant factors influencing teacher retention and teacher turnover is the location of the teacher preparation institution. Between 2007 and 2012, overall turnover rates for Alaska teachers were 8.2% for teachers who received their teacher preparation in-state and 14.2% for teachers who received their teacher preparation outside of the state of Alaska, while these figures rose to 15.2% and 24.6% respectively in rural high poverty schools (see Figure 24) (Hill & Hirshberg, 2013). This discrepancy may possibly reflect a more effective preparation by in-state institutions for the Alaska context, but it almost certainly reflects the greater likelihood for Alaskan teachers attending Alaskan institutions to have pre-existing connections to Alaska and a desire to remain in the state (Hill & Hirshberg, 2013).

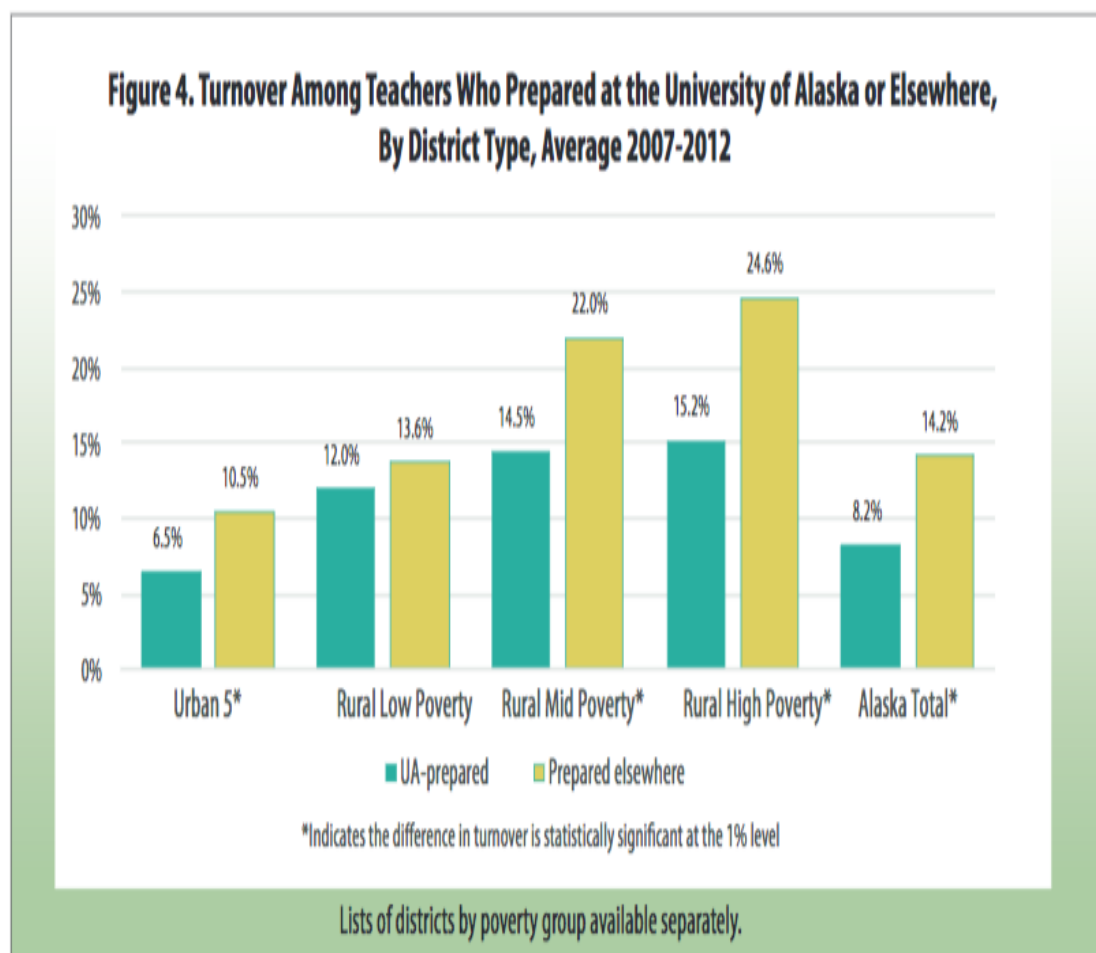


Figure 4 shows turnover rates for teachers at all levels of experience, statewide and by type of district, from 2007 to 2012. It compares teachers who studied at the University of Alaska with those who studied elsewhere. Across the state, teachers who studied at the University of Alaska had considerably lower turnover rates than those who studied elsewhere. The one exception was in the “Rural Low Poverty” group of districts, where turnover among both groups of teachers was similar. Most communities in those districts have economies supported by fishing, tourism, or both.

Source: Hill and Hirshberg (2013)

*Figure 24.* Teacher turnover by preparation institution and location.

*Teacher Cited Reasons for Staying In or Leaving Schools in Alaska.* No comprehensive study of teachers who leave their jobs has been conducted in Alaska (DeFeo et al., 2017). However, McDiarmid and Larson (2002) surveyed 135 teachers in

Alaska who vacated their positions at the conclusion of the 2000-2001 school year, to try to analyze why teachers either switched school districts or left the teaching profession (see Figures 25-26). When teachers were asked why they left their school district, a large share of teachers cited personal or family reasons (80%). Many teachers also responded that they wanted to live elsewhere (63%), were not satisfied by support of school administrators (61%), support of the community (51%), or support of the school board (45%). Affordability of housing (46%) and quality of housing (38%) were also significant factors in decisions to leave. Salary was a concern for only about 22% of teachers, with teachers switching between urban school districts being much more likely to change positions due to salary than rural educators (50% to 14%). Having access to better medical care was a concern factor for rural teachers (30%) and was not a concern (0%) for urban educators switching districts. When asked the rationale for why they left the teaching profession, teachers frequently cited family or personal reasons (59%), the desire to pursue a different career (50%), being dissatisfied with job expectations or responsibilities (45%), and dissatisfaction with the levels of support in the community (37%). The teaching salary or associated benefits were only a concern to 21% of teachers leaving the profession (McDiarmid & Larson, 2002).

The Coalition for Education Equity (CEE) conducted a pilot study in five Alaska school districts to apply a third party, research-based, systems model in order to better understand and track teacher satisfaction with their work environment, social environment, and basic needs environment at multiple points throughout the school year. The study, which was titled Research-based Educator Systems Support (RESS), worked

| Reason for moving:                                    | Urban Movers<br>(N=17) | Rural Movers<br>(N=38) | Both<br>(N=55) |
|---|------------------------|------------------------|----------------|
|   | Percent                | Percent                | Percent        |
| Personal or family reasons                            | 100%                   | 73%                    | 80%*           |
| To reside elsewhere                                   | 50%                    | 67%                    | 63%            |
| Dissatisfied with district administrative support     | 64%                    | 60%                    | 61%            |
| To teach in other district or community               | 36%                    | 57%                    | 52%            |
| Dissatisfied with community support of school         | 36%                    | 56%                    | 51%            |
| Dissatisfied with school board support                | 36%                    | 47%                    | 45%            |
| To have more affordable housing                       | 64%                    | 41                     | 46%            |
| To have better housing                                | 36%                    | 38%                    | 38%            |
| For better professional development opportunities     | 36%                    | 38%                    | 38%            |
| For better shopping                                   | 36%                    | 28%                    | 30%            |
| For cultural events                                   | 9%                     | 35%                    | 29%            |
| Because job description or responsibilities changed   | 9%                     | 32%                    | 27%            |
| Because colleague support unsatisfactory              | 9%                     | 27%                    | 23%            |
| For better salary or benefits                         | 50%                    | 14%                    | 22%**          |
| For better medical care                               | 0                      | 30%                    | 22%*           |
| For health-related reasons                            | 9%                     | 24%                    | 21%            |
| Dissatisfied with education for movers' children      | 0                      | 25%                    | 20%            |
| Dissatisfied with job description or responsibilities | 0                      | 22%                    | 17%            |
| Because not prepared to enact reforms                 | 0                      | 19%                    | 14%            |
| Because disagreed with reforms                        | 9%                     | 14%                    | 13%            |
| Because laid-off or transferred                       | 0                      | 11%                    | 8%             |
| To enroll in other career courses                     | 9%                     | 5%                     | 6%             |

\* Difference significant at <.05 level \*\* Significant at the <.01 level Source: ISER survey of exiting teachers, 2001-02

Source: McDiarmid and Larson (2002)

Figure 25. Reasons for Alaska teachers moving from one district to another.

| Important or Very Important Reasons for Leaving Teaching                           | Urban<br>Leavers<br>N=9 | Rural<br>Leavers<br>N=21 | Both<br>N=30 |
|--|-------------------------|--------------------------|--------------|
| Left because of family/personal reasons  | 67%                     | 55%                      | 59%          |
| Left to pursue another career  | 50%                     | 50%                      | 50%          |
| Dissatisfied with job description or responsibilities                              | 40%                     | 48%                      | 45%          |
| Changed residence  | 60%                     | 30%                      | 40%          |
| Dissatisfied with community support of the school                                  | 40%                     | 35%                      | 37%          |
| Took sabbatical or other break from teaching                                       | 33%                     | 35%                      | 35%          |
| Left for better salary or benefits   | 14%                     | 24%                      | 21%          |
| Left for health-related reasons  | 13%                     | 20%                      | 18%          |
| Laid off or involuntarily transferred  | 0                       | 25%                      | 17%          |
| Dissatisfied with CHANGES in job description or responsibilities                   | 13%                     | 15%                      | 14%          |
| Enrolled in courses to improve career opportunities OUTSIDE the field of education | 0%                      | 20%                      | 14%          |
| Enrolled in courses to improve career opportunities WITHIN the field of education  | 10%                     | 5%                       | 7%           |
| Felt unprepared to implement new reform measures                                   | 0%                      | 10%                      | 7%           |
| Did not agree with new reform measures   | 8%                      | 7%                       | 7%           |

Source: ISER survey of exiting teachers, 2001-02

Source: McDiarmid and Larson (2002)

Figure 26. Reasons Alaska teachers cited for leaving the profession.



| Somewhat or Very Important Reasons for Retiring from Teaching                                  | Urban and Rural Teachers (N=21) |
|--|---------------------------------|
| Became eligible to receive full pension benefits   | 62%                             |
| Retired for other family or personal reasons   | 58%                             |
| Dissatisfied with job description or responsibilities  | 57%                             |
| Dissatisfied with CHANGES in job description or responsibilities                               | 52%                             |
| Dissatisfied with teaching as a career   | 52%                             |
| Did not agree with new reform measures   | 26%                             |
| Did not feel prepared to implement new reform measures   | 14%                             |
| Became eligible to accept early retirement incentive   | 9%                              |
| Wanted to teach in a different state but my state teacher certification was not accepted there | 0                               |

Source: ISER survey of exiting teachers, 2001-02

Source: McDiarmid and Larson (2002)

Figure 27. Reasons for Alaska teachers retiring.

with five strategically selected volunteer school districts (to include a cross-section of school district size, geographical location, school district governance structure, and cultural region) from April 1, 2017 through June 30, 2018. The five school districts that participated in RESS were Alaska Gateway School District (AGSD), Kashunamiut School District (KSD), Nome Public Schools (NPS), Northwest Arctic Borough School District (NWABSD), and Yupiit School District (YSD) (Adams & Covey, 2018).

The research design of the RESS study used a series of surveys with predominantly the same respondents throughout the school year to observe trends based on district responses to data. Educators were contacted via email and invited to complete the surveys which were administered online. The final educator response rate averaged 68% across the five school districts and the four survey administrations. The data that was collected in the study and was shared with Alaskan school districts to help support and formulate a coordinated district response that addresses teacher concerns with a goal of ultimately improving teacher retention and reducing teacher turnover. Overall data revealed a strong start of the school year with gradual downward trends in satisfaction overall, and for satisfaction with the work environment, leadership, and community dimensions, while findings remained fairly consistent over the year for the teacher efficacy and quality of life dimensions (Adams & Covey, 2018).

Alaska teacher RESS questionnaire responses indicated dissatisfaction that can be summarized in the following areas - the following areas were perceived by educators as inadequate: (a) support for teachers to understand student cultural contexts and integrate local cultural knowledge into instructional practice; (b) interactions between the school and community support a positive high quality learning environment for students; (c) teachers receive a positive introduction to the culture of the community, and the culture and community is reflected in school activities producing positive outcomes connected to the intended purpose; (d) Teacher health needs were satisfactorily met in the community; (e) there is a positive relationship and communication between the parents and the school that supports the students; (f) someone at work has talked to, encouraged, and evaluated the teacher in their development as a professional educator; (g) teacher

opportunities for engagement with the community members have strengthened teacher success this year; and (h) someone has recognized, valued, and praised teacher contributions to the school which has contributed to teacher professional growth (Adams & Covey, 2018).

While the RESS study did not directly examine the relationship between teacher retention and responses on the satisfaction questionnaire, comments from returning and leaving teachers were collected. Staying teachers identified administration, professionalism, expectations, communication, and quality of life as their predominant reasons for returning to their same school next year. Leaving teachers identified administration, support, safety, family, and student behaviors as their predominant reasons for leaving their school district (Adams & Covey, 2018).

***Teacher Retention and Teacher Turnover in Rural Alaska.*** Teacher retention and turnover takes on new meaning in rural Alaska.

Many rural Alaska communities combine geographic remoteness, challenging climate, high living costs, and sharp cultural differences between the school population and most of the educators who teach them. . . . In rural Alaska where 90 percent or more of the students are Alaska Natives, serving students and communities means meeting Indigenous students' needs. (DeFeo, Hirshberg, & Hill, 2018, p. 1)

***Teacher Recruitment in Rural Alaska.*** Alaska's rural school districts need to recruit nationally to fill their vacancies. Most teachers employed in rural Alaska come from the lower 48 because there are not enough in-state applicants with teaching credentials (Leins, 2019). From 2008-2012, in-state teacher preparation programs supplied only about 7% of teachers hired for rural positions (DeFeo & Tran, 2019). While approximately 20% of open positions were filled with Alaska teachers, over 70% of positions in rural Alaska were filled with teachers from outside of Alaska (DeFeo et

al., 2018). Rural school districts in Alaska are frequently represented at job fairs across the United States in order to recruit teaching candidates, with school districts investing an average of \$20,500 per teaching vacancy, and investing 32 hours or more of administrator time per teaching vacancy on prescreening, selecting, interviewing, communicating by phone with candidates, and conducting reference and background checks (DeFeo et al., 2017; DeFeo & Tran, 2019).

Due to teachers being required to live in isolated villages (sometimes with roommates in school district assigned housing) with few amenities, options for groceries, or entertainment, teachers in rural Alaska are among the highest paid in the nation. Yet despite comparatively higher salaries, many rural Alaska schools have great difficulty filling open teaching positions (Leins, 2019). While it is true that salaries in Alaska's rural school districts remain higher than the national average, comparatively, salaries and retirement packages have not kept pace with what were offered in rural areas of the state a decade or two ago. Ty Mase, the superintendent of the Lake and Borough School

District observed:

Every year we have to work harder and it's just getting more difficult . . . but just working harder doesn't seem like it's going to keep us afloat. We used to give people a retirement and a high salary. Now we find we give experience and build resumes and people don't come for the salary or retirement. They come for two or three years, build their resume and then they go wherever. (Hanlon, 2017, para. 8)

Additionally, between 2009-2014, nationwide the number of higher education students training to be teachers dropped from 691,000 to 451,000, representing a 35% reduction (Hanlon, 2017). Due to in-state institutions preparing only 7% of the teachers hired in rural Alaska on an annual basis, this nationwide reduction in potential teacher candidates has been clearly felt by rural Alaska school districts. Tori McFadden, manager of the

Alaska Teacher Placement clearinghouse observed: “Every year it is harder to fill the jobs and there are more jobs open when school starts. There’s more pressure to hire, because nationwide, there are fewer teachers” (Hanlon, 2017, para. 13). Dan Walker, superintendent of the Lower Kuskokwim School District, noted: “The competition for teachers is just really off the charts right now. We’re beating the bushes trying to find people to apply for jobs” (Hanlon, 2017, para. 15).

*Transitioning to Rural Alaska Schools and Villages.* Statistically speaking, the classrooms of rural Alaska are populated by a large number of teachers who tend to be fresh out of school and from the lower 48 states (Boots, 2014). The distance that teachers are from their families often makes it difficult for them to stay (Hill & Hirshberg, 2006). Even for teachers with years of classroom teaching experience, transitioning to a new school environment requires additional time and support, and this is especially true if the teacher is moving to a school that is culturally distinct from their previous teaching experiences (Guin, 2004). The need for additional time and support to adjust to a new environment is especially pronounced for new teachers moving to rural Alaska (DeFeo et al., 2017).

*Disruption of Instructional Cohesion.* High rates of teacher turnover may disrupt trust and collaboration between school leadership, teachers, students, parents, community members, and educational stakeholders in rural Alaska (DeFeo et al., 2017). Teacher attrition at some rural school districts is high enough to disrupt instructional cohesion, most likely resulting in low student achievement (Ronfeldt et al., 2013). DeFeo et al. (2018) observed:

The impact [of high rates of teacher turnover] is reflected in student achievement; students in Alaska’s highest turnover districts have significantly lower

standardized test scores (Hill, Hirshberg, & Kasemodel, 2014) and high school graduation rates (author analysis of DEED school report card and staff assignment data). (p. 11)

This correlation is particularly compelling for rural school districts in the state when considering that Alaska's remote rural districts have traditionally had the highest teacher turnover in the state and been among the lowest achieving school districts on state assessments. Where high teacher turnover occurs, critical institutional knowledge can be lost resulting in already low performing schools becoming even more ineffective and leading to decreased student achievement (DeFeo et al., 2018). DeFeo and Tran (2019), citing Shields (1999) noted: "Ongoing dedication of resources to hiring results in continuous instability, inadequate mentors, and a lack of professional development for other teachers, which hinders instruction and ultimately encourages more teachers to leave" (p. 10).

*Development and Retention of Cultural Competency.* Teaching students in rural Alaska using instructional approaches that allow students to preserve and value their native cultural identity is vital for student motivation, curriculum relevance, and community and cultural stability (Castagno, 2008). Developing and retaining a stable and effective teacher workforce that understands and embraces the powerful local cultural contexts of rural Alaska's Native villages is critical for healthy and resilient communities (Barnhardt, 2014; Kaden, Patterson, Healy, 2014). DeFeo and Tran (2019) observed:

Upon finally arriving in their remote sites, the priorities of [professional development] and mentoring are for new teachers to adapt to the community's atmosphere, learn about Native ways of living, establish a relationship with Indigenous knowledge systems, and engage with elders and community activities. In many districts, a cultural orientation takes place prior to content training and

other educator-related [professional development], and these activities reflect the shared responsibility between the community and school district. (p. 10)

Unfortunately, teachers new to rural Alaska often learn about the local cultures, Alaska Native lifestyles, and differentiating instruction only to leave after a year or two (Munsch & Boylan, 2008).

*Teacher Retention and Turnover Statistics in Rural Alaska.* Sometimes national data on teacher retention can be misleading with respect to rural Alaska. National data suggests that higher teacher salaries are likely to contribute to higher than average rates of teacher retention. Yet despite rural Alaska school districts offering teacher salaries that are well-above the state and national averages, rural Alaska schools still struggle to retain teachers. Additionally, while national data shows that teachers are more likely to stay in rural school districts than in urban districts, this trend doesn't hold true in Alaska. Over a 13 year period, teacher turnover in rural Alaska school districts averaged over 20% (as compared to 10% in Alaska's urban and suburban districts) (see Figure 28). In schools in rural Alaska, typically located in high-poverty regions and communities, teacher turnover can reach as high as 52% in some school districts (see Figure 29) (Sledge, 2017). Of the 20% of teachers who leave Alaska's rural school districts each year, an eye-opening 80% leave Alaska's education system entirely, while 10% move to urban schools, and another 10% take other positions in education (see Figure 30) (Hill & Hirshberg, 2013). In illustration of the compounded impact of teacher turnover in rural school districts, over a 5 year span, a dozen rural Alaska school districts lost 66% or more of their teachers (DeFeo et al., 2018).

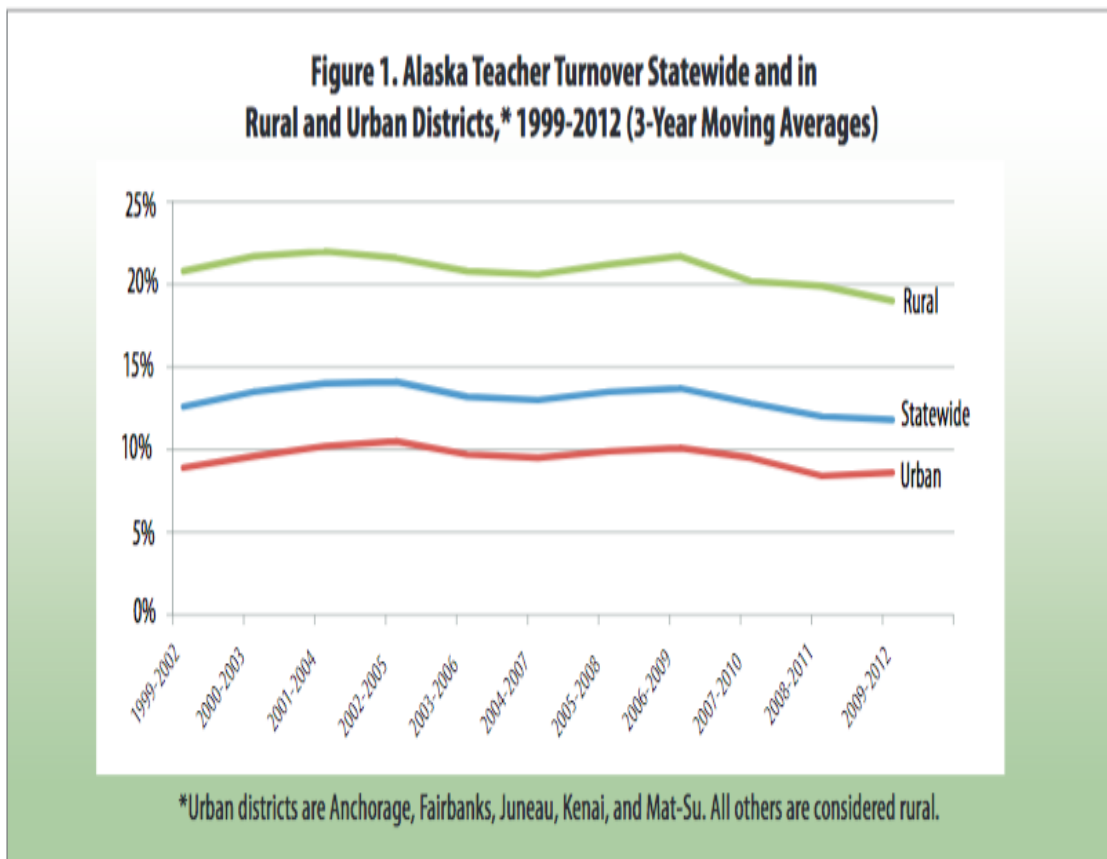
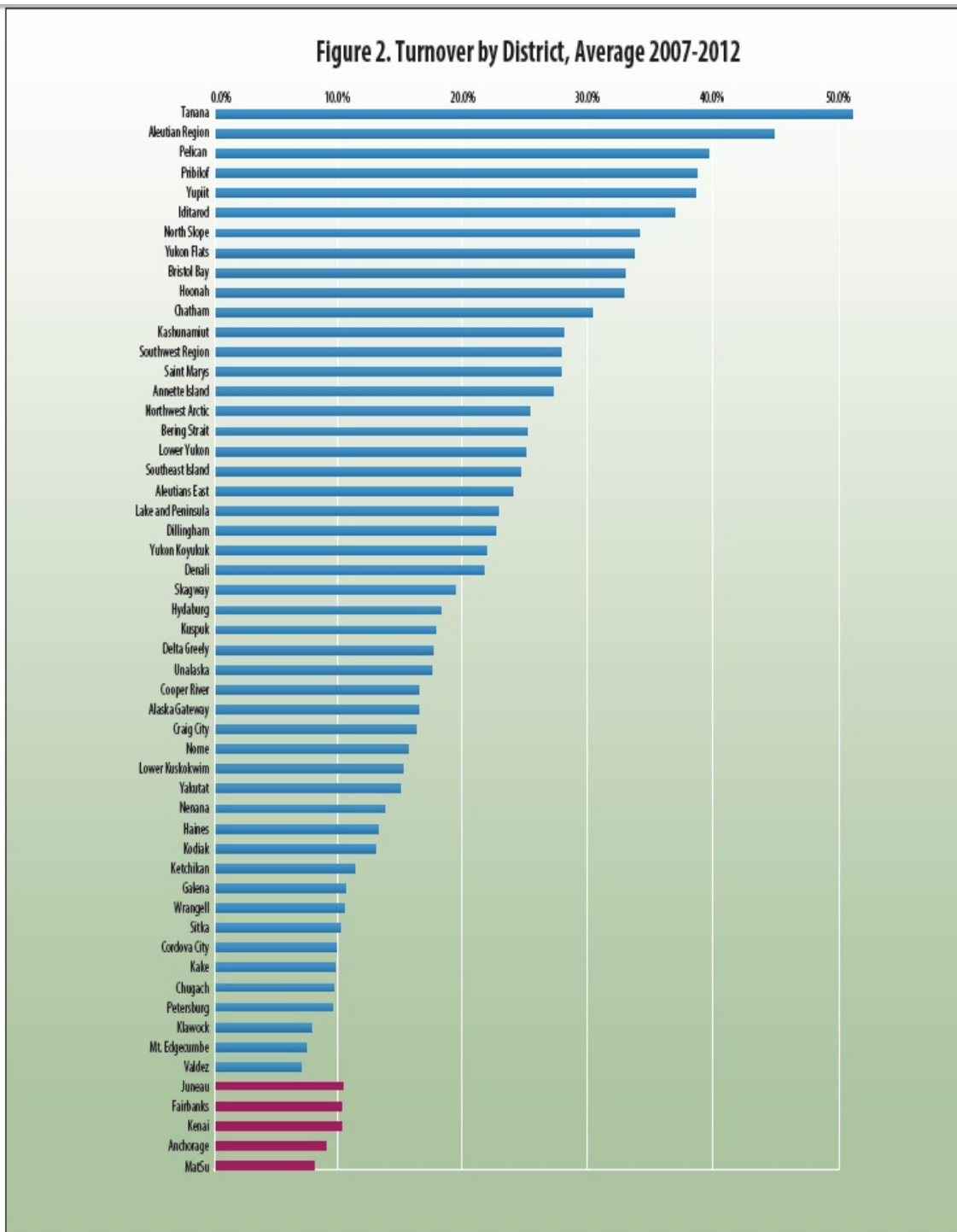


Figure 1 shows three-year moving averages for teacher turnover statewide and in urban and rural districts from 1999 to 2012. The rate of teacher turnover has fallen slightly in both urban and rural districts in the past couple of years.

Source: Hill and Hirshberg (2013)

*Figure 28.* Alaska teacher turnover in rural and urban areas.



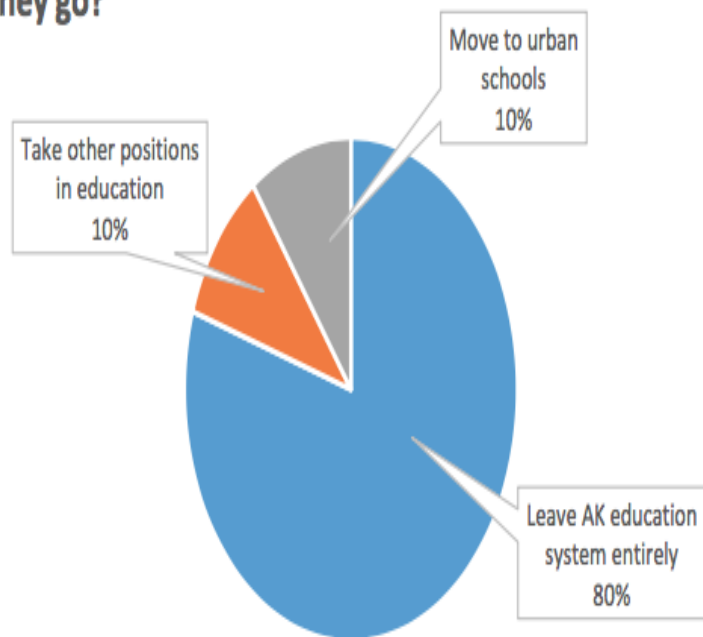


Turnover rates varied considerably across rural districts from 2007 to 2012, from more than 30% in nearly a dozen districts to less than 10% in about half a dozen districts. Turnover in the five urban districts was about 9% during that period.

Source: Hill and Hirshberg (2013)

Figure 29. Teacher turnover in Alaska school districts 2007-2012.

Figure 1

**20% of teachers leave Alaska's rural districts each year.****Where do they go?**

*When teachers leave Alaska's rural districts, most leave the Alaska education system entirely. A smaller proportion take other positions in the education profession or move to urban schools. These data represent 6,402 teachers who left Alaska's rural school districts between 2001 and 2012. Adapted from Hill and Hirshberg (2013).*

Source: DeFeo et al. (2017)

*Figure 30.* What happens to leaving rural Alaskan teachers?

Alaska Teacher Placement (2017), citing the Alaska Department of Administration (2015), noted that teacher turnover is significantly higher in remote rural Alaska than in road system and ferry system communities:

larger communities, those with a milder climate and lower percentages of minority students, and more accessible communities had significantly lower turnover. In particular, road access, ferry access, commercial jet air service, proximity to Anchorage or Fairbanks for road-accessible communities, and lower air fares from the regional hub to Anchorage or Fairbanks all reduced turnover. (p. 13)

An examination of statewide teacher turnover data reveals significant trends with respect to teacher retention and turnover in Alaska's rural areas. Annual teacher turnover rates vary tremendously between rural districts, ranging from a low of 7% to over 52% (Hill & Hirshberg, 2013). The highest annual turnover is found in rural remote districts (36% turnover) located in interior (22% turnover), southwestern (32% turnover), and northern (33% turnover) regions of the state. While urban school districts have turnover rates that are generally much lower with less variability (about 8% - 10%), in predominantly rural areas, 12 of the state's 53 school districts have averaged a teacher turnover rate of over 30%, and another 17 school districts have averaged teacher turnover rates of over 20% (DeFeo & Tran, 2019; Vazquez Cano et al., 2019).

At the school level, over a six year span from the 2012-2013 school year through the 2017-2018 school year, the average teacher turnover rate in rural remote schools (off the road system and without direct flights to Anchorage or Fairbanks) was 36% of teachers per year, while schools in rural 'hubs' (off the road systems, but with direct flights to Anchorage or Fairbanks) had 24% teacher turnover (see Figure 31) (Vazquez Cano et al., 2019). This differential between teacher turnover in rural remote schools and

| Category               | Level                              | Number of teachers across years | Average retention and turnover rates by category (percent) |                     |                          |        |          | Turnover rate (percent) |         |         |         |         |         |
|------------------------|------------------------------------|---------------------------------|--|---------------------|--------------------------|--------|----------|-------------------------|---------|---------|---------|---------|---------|
|                        |                                    |                                 | Retained   | Mover-same district | Mover-different district | Leaver | Turnover | 2012/13                 | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 |
| Broadband availability | No                                 | 8,159                           | 66   | 6                   | 6                        | 22     | 34       | 33                      | 33      | 35      | 35      | 35      | 34      |
|                        | Yes                                | 41,804                          | 80   | 7                   | 1                        | 12     | 20       | 19                      | 18      | 20      | 22      | 19      | 20      |
| Locale type            | Urban (on and off road)            | 25,042                          | 81   | a                   | a                        | 11     | 19       | 17                      | 18      | 19      | 22      | 16      | 20      |
|                        | Urban fringe (on and off road)     | 11,624                          | 81   | 7                   | 1                        | 12     | 19       | 21                      | 16      | 19      | 21      | 22      | 16      |
|                        | Rural hub/fringe (on and off road) | 5,978                           | 76   | 6                   | 3                        | 15     | 24       | 23                      | 24      | 23      | 26      | 24      | 26      |
|                        | Rural remote (off road)            | 7,319                           | 64   | 6                   | 6                        | 23     | 36       | 33                      | 35      | 38      | 37      | 36      | 36      |
| Alaska region          | Southeast                          | 5,372                           | 80   | 5                   | 2                        | 13     | 20       | 18                      | 21      | 20      | 22      | 18      | 21      |
|                        | Southcentral                       | 29,824                          | 81   | 8                   | 1                        | 11     | 19       | 19                      | 16      | 20      | 23      | 20      | 19      |
|                        | Southwest                          | 4,931                           | 68   | 5                   | 6                        | 21     | 32       | 28                      | 31      | 31      | 33      | 33      | 34      |
|                        | Interior                           | 6,496                           | 78   | 7                   | 2                        | 13     | 22       | 20                      | 25      | 20      | 23      | 19      | 24      |
|                        | North                              | 3,340                           | 67   | 4                   | 6                        | 23     | 33       | 31                      | 33      | 37      | 34      | 30      | 32      |

Source: Vazquez Cano et al. (2019)

*Figure 31.* Educator turnover by year and locale type in percentages.

teacher turnover in rural hub schools indicates that teacher turnover is highest in the most isolated areas of rural Alaska. For teachers that are employed in Alaska's most rural and remote schools, the rates of teacher turnover tend to be similar regardless of years of teacher experience. And, while statewide, teachers who completed their teacher preparation in Alaska have much lower turnover rates than those prepared in the

lower 48, for teachers working in rural remote schools, the turnover rates are similar for teachers prepared in Alaska and those prepared out-of-state (Alaska Teacher Placement, 2017; Hill & Hirshberg, 2013).

Figures 32 and 33 shows the teacher retention rates and teacher turnover rates in Alaska school districts. Over a period of 14 years from 1999-2013, the Bering Strait School District experienced rates of teacher retention varying from 66% to 81% while experiencing substantial rates of teacher turnover varying from 19% to 34% (Kaden et al., 2016).

*Unique Factors in Rural Alaska Contributing to Teacher Turnover.* Rural in Alaska, is quite different from rural contexts in other states. Remoteness, inadequate housing conditions, village living conditions (community disconnectedness, lack of community amenities), and weather are all factors unique to rural Alaska that may contribute to teachers leaving their positions (Sledge, 2017).

Remoteness. Many schools in Alaska are in remote locations that are not accessible by roads and can only be reached by small plane or boat, so access can be both expensive and difficult. The location of rural schools in Alaska may also contribute to a sense of isolation for teachers working in these areas. Hirshberg, Hill, & Kasemodel (2014) found that Alaska teachers who left rural Alaska expressed feelings of isolation, loneliness, a desire for a relationship, or expressed missing their extended family. DeFeo et al. (2017) cited a Cope and Germuth (2012) study of 120 teachers from the Lower Kuskokwim School District and Northwest Arctic Borough School District that found that distance from family and/or urban areas is one of the major reasons that teachers leave Alaska.

## Teacher Retention Rates between School Years (SY) 2010 to 2013

| District         | Teacher<br>Count<br>(N) | %<br>Average<br>Retention | SD   | %<br>SY09-<br>10 | &<br>SY10-<br>11 | &<br>&<br>SY11-12 | &<br>SY12-<br>13 |
|------------------|-------------------------|---------------------------|------|------------------|------------------|-------------------|------------------|
| <b>Rural</b>     |                         |                           |      |                  |                  |                   |                  |
| <b>Districts</b> |                         |                           |      |                  |                  |                   |                  |
| Bering Strait    | 234                     | 68                        | 2.6  | 65               | 70               | 70                | 66               |
| Denali           | 33                      | 86                        | 9.5  | 97               | 80               | 90                | 76               |
| Iditarod         | 30                      | 66                        | 9.5  | 78               | 56               | 67                | 61               |
| Nenana           | 26                      | 91                        | 10.5 | 92               | 100              | 76                | 96               |
| Nome             | 56                      | 83                        | 7.9  | 93               | 80               | 74                | 83               |
| North Slope      | 168                     | 80                        | 2.1  | 77               | 79               | 80                | 82               |
| Northwest Arctic | 153                     | 77                        | 7.3  | 85               | 80               | 72                | 69               |
| Tanana           | 5                       | 74                        | 18.9 | 60               | 60               | 75                | 100              |
| Yukon Flats      | 34                      | 69                        | 9.0  | 75               | 74               | 59                | *-               |
| Yukon-Koyukuk    | 56                      | 78                        | 12.0 | 81               | 91               | 78                | 62               |
| <b>Urban</b>     |                         |                           |      |                  |                  |                   |                  |
| <b>Districts</b> |                         |                           |      |                  |                  |                   |                  |
| Anchorage        | 3142                    | 94                        | 1.2  | 93               | 94               | 93                | 95               |
| Fairbanks        | 926                     | 92                        | 1.5  | 93               | 90               | 91                | 92               |
| Matsu            | 913                     | 95                        | 2.0  | 93               | 93               | 97                | 96               |
| <b>Mean</b>      |                         |                           |      |                  |                  |                   |                  |
| Rural Mean       | 80                      | 77                        | 2.4  | 80               | 77               | 74                | 77               |
| Urban Mean       | 1660                    | 94                        | 0.8  | 93               | 92               | 93                | 94               |
| Alaska Statewide | 8862                    | 82                        | 2.3  | 90               | 89               | 89                | 90               |

\* Unreported

Source: Kaden et al. (2016)

Figure 32. Teacher retention rates in Alaska school districts 2010-2013.

|                       | 1999-2000 | 2000-2001 | 2001-2002 | 2002-2003 | 2003-2004 | 2004-2005 | 2005-2006 | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | 2010-2011 | 2011-2012 |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2 'Denali'            | 28.6%     | 13.8%     | 33.3%     | 14.8%     | 37.9%     | 17.2%     | 20.0%     | 18.2%     | 21.2%     | 23.3%     | 26.7%     | 23.1%     | 14.8%     |
| 3 'Alaska Gateway'    | 12.5%     | 20.0%     | 13.9%     | 24.2%     | 23.5%     | 12.1%     | 28.6%     | 31.3%     | 18.8%     | 25.8%     | 12.9%     | 13.3%     | 11.8%     |
| 4 'Aleutian Region'   | 42.9%     | 33.3%     | 33.3%     | 16.7%     | 33.3%     | 57.1%     | n/a       | n/a       | 33.3%     | 33.3%     | 50.0%     | 60.0%     | 50.0%     |
| 5 'Anchorage'         | 8.0%      | 7.8%      | 9.7%      | 11.9%     | 9.8%      | 10.2%     | 8.5%      | 9.7%      | 11.9%     | 8.8%      | 7.1%      | 8.0%      | 9.1%      |
| 6 'Annette Island'    | 18.2%     | 23.3%     | 37.0%     | 7.4%      | 25.0%     | 18.2%     | 34.4%     | 30.0%     | 40.6%     | 6.9%      | 18.8%     | 41.4%     | 29.6%     |
| 7 'Bering Strait'     | 33.1%     | 34.0%     | 23.5%     | 32.2%     | 34.1%     | 32.7%     | 21.9%     | 19.3%     | 24.7%     | 22.8%     | 27.9%     | 25.6%     | 25.7%     |
| 8 'Bristol Bay'       | 8.3%      | 8.3%      | 12.5%     | 18.2%     | 35.0%     | 21.1%     | 37.5%     | 20.0%     | 37.5%     | 25.0%     | 20.0%     | 43.8%     | 40.0%     |
| 9 'Chatham'           | 19.0%     | 28.6%     | 12.5%     | 34.8%     | 35.0%     | 23.8%     | 40.0%     | 31.3%     | 33.3%     | 52.6%     | 16.7%     | 15.0%     | 35.3%     |
| 10 'Chugach'          | 16.7%     | 8.3%      | 35.7%     | 7.1%      | 35.3%     | 25.0%     | 7.1%      | 8.3%      | 7.1%      | 0.0%      | 7.7%      | 21.1%     | 12.5%     |
| 11 'Copper River'     | 13.6%     | 14.6%     | 9.5%      | 14.0%     | 11.9%     | 15.8%     | 13.2%     | 17.9%     | 15.8%     | 15.8%     | 13.5%     | 21.1%     | 16.7%     |
| 12 'Cordova City'     | 27.8%     | 8.6%      | 18.9%     | 17.1%     | 15.2%     | 25.0%     | 6.3%      | 22.6%     | 7.1%      | 10.7%     | 3.4%      | 10.0%     | 17.9%     |
| 13 'Craig City'       | 23.1%     | 11.5%     | 9.7%      | 28.6%     | 17.1%     | 16.2%     | 17.6%     | 12.5%     | 8.8%      | 20.0%     | 10.8%     | 31.0%     | 11.1%     |
| 14 'DeltaGreely'      | 12.9%     | 22.0%     | 19.1%     | 11.9%     | 24.5%     | 14.8%     | 14.5%     | 12.7%     | 16.4%     | 18.5%     | 19.4%     | 20.0%     | 14.5%     |
| 15 'Dillingham'       | 31.7%     | 19.4%     | 22.0%     | 40.5%     | 22.5%     | 15.8%     | 22.5%     | 25.6%     | 37.8%     | 31.0%     | 22.0%     | 12.8%     | 10.5%     |
| 16 'Fairbanks'        | 0.4%      | 15.5%     | 8.8%      | 10.6%     | 11.2%     | 10.5%     | 8.4%      | 10.9%     | 10.0%     | 11.7%     | 8.8%      | 10.3%     | 10.9%     |
| 17 'Galena'           | 9.8%      | 19.0%     | 8.9%      | 7.9%      | 13.2%     | 11.8%     | 18.2%     | 13.8%     | 3.2%      | 19.1%     | 7.6%      | 10.9%     | 12.3%     |
| 18 'Haines'           | 14.7%     | 11.4%     | 12.9%     | 23.3%     | 23.1%     | 19.0%     | 4.5%      | 22.7%     | 9.5%      | 4.8%      | 13.0%     | 16.0%     | 23.1%     |
| 19 'Hoonah'           | 19.0%     | 4.5%      | 4.5%      | 26.1%     | 15.8%     | 20.0%     | 7.7%      | 14.3%     | 7.7%      | 33.3%     | 50.0%     | 50.0%     | 25.0%     |
| 20 'Hydaburg'         | 33.3%     | 44.4%     | 44.4%     | 18.2%     | 63.6%     | 40.0%     | 9.1%      | 9.1%      | 20.0%     | 27.3%     | 11.1%     | 22.2%     | 11.1%     |
| 21 'Iditarod'         | 35.0%     | 38.5%     | 50.0%     | 48.4%     | 68.8%     | 46.7%     | 25.8%     | 41.4%     | 37.5%     | 29.6%     | 19.0%     | 52.0%     | 48.0%     |
| 22 'Juneau'           | 17.7%     | 8.5%      | 11.0%     | 10.3%     | 13.0%     | 8.5%      | 10.9%     | 10.1%     | 9.8%      | 10.2%     | 10.2%     | 11.1%     | 10.5%     |
| 23 'Kake'             | 33.3%     | 41.2%     | 7.1%      | 0.0%      | 18.8%     | 42.9%     | 31.3%     | 38.5%     | 11.1%     | 20.0%     | 9.1%      | 8.3%      | 0.0%      |
| 24 'Kenai'            | 12.8%     | 6.8%      | 9.0%      | 12.1%     | 13.6%     | 10.8%     | 11.2%     | 13.3%     | 12.7%     | 10.1%     | 10.5%     | 9.0%      | 9.2%      |
| 25 'Ketchikan'        | 9.7%      | 14.3%     | 9.7%      | 11.9%     | 8.5%      | 7.7%      | 4.2%      | 10.6%     | 12.3%     | 13.5%     | 11.3%     | 10.1%     | 9.2%      |
| 27 'Klawock'          | n/a       | n/a       | 18.8%     | 17.6%     | 26.7%     | 7.1%      | 26.7%     | 6.7%      | 13.3%     | 0.0%      | 6.7%      | 13.3%     | 5.9%      |
| 28 'Kodiak'           | 12.3%     | 14.1%     | 10.7%     | 13.0%     | 11.5%     | 11.0%     | 14.8%     | 11.6%     | 10.8%     | 14.8%     | 8.8%      | 17.0%     | 14.0%     |
| 29 'Kuspuk'           | 27.7%     | 29.8%     | 34.8%     | 36.2%     | 33.3%     | 42.1%     | 22.6%     | 34.3%     | 16.7%     | 22.5%     | 17.9%     | 26.5%     | 5.7%      |
| 30 'Lake & Peninsula' | 32.0%     | 37.5%     | 42.6%     | 27.5%     | 27.5%     | 20.4%     | 34.0%     | 39.1%     | 27.5%     | 8.9%      | 31.9%     | 28.3%     | 18.2%     |
| 31 'Lower Kuskokwim'  | 23.4%     | 18.4%     | 22.1%     | 23.7%     | 24.0%     | 19.8%     | 20.3%     | 14.8%     | 21.6%     | 10.8%     | 16.4%     | 16.0%     | 11.7%     |
| 32 'Lower Yukon'      | 22.7%     | 22.6%     | 31.0%     | 29.5%     | 17.1%     | 21.1%     | 30.1%     | 31.9%     | 25.0%     | 27.9%     | 22.8%     | 20.7%     | 29.5%     |
| 33 'MatSu'            | 14.7%     | 5.6%      | 6.0%      | 7.6%      | 8.9%      | 8.8%      | 7.5%      | 6.7%      | 10.5%     | 7.4%      | 6.6%      | 5.4%      | 10.7%     |

Source: Hill and Hirshberg (2013)

Figure 33. Teacher turnover rates by Alaska school district 1999-2012.

Weather, Darkness, and Daylight. The weather in rural Alaska villages can be a factor in why teachers leave. DeFeo et al. (2017) cited Cope and Germuth's (2012) study of 120 teachers returning to the Lower Kuskokwim School District and Northwest Arctic Borough School District and found that the cold and dark of winter is a reason contributing to teachers leaving their positions. Many areas of rural Alaska have more extreme seasonal cycles of day and night than the road system of Southern Alaska (or other states). In the winter, in many parts of the state, it is dark much of the day, leaving only a few hours of daylight. Conversely, in the Spring and Fall, daylight hours can continue well past midnight making it challenging to observe normal sleeping patterns. Some find it necessary to black out the windows on houses in order to sleep properly at night.

Lack of adequate housing. Lowe (2006) found that a lack of adequate housing is a major reason that there is a high teacher turnover in rural areas. DeFeo et al. (2017), citing Hirshberg (2016), noted that poor housing and living conditions are a factor in influencing teacher turnover in rural Alaska. Most teachers working in rural Alaska are recruited and sign contracts without having visited rural Alaska, the village in which they will live in, or school in which they will teach. Many teachers indicated that they were misinformed or that they misunderstood the nature of the living conditions in rural Alaska prior to their arrival (DeFeo & Tran, 2019). Housing availability is often limited or non-existent, housing costs can be high, and in some rural Alaskan communities, teacher housing even lacks running water and sewer hookups. In some villages in rural school districts, teacher housing is owned by the school district and assigned to teachers by school administrators, and may be the only viable option for housing in the village.



As such, teachers in rural Alaska may not have access to private housing and may be assigned roommates by school administrators based on housing availability (DeFeo et al., 2017). Teacher housing is procured and assigned to teachers that work in the villages of the Bering Strait School District.

Community Disconnectedness. A 2013 survey of nearly 300 rural Alaska teachers found strong correlations between teacher retention and their feelings of connectedness to their communities (Hirshberg et al., 2014). Teachers who left their positions were far less likely to identify living in their community as being rewarding, and far more likely to identify that they were not supported by families or community members where they lived and worked (Hirshberg et al., 2014). In a survey of teachers who left their positions in rural Alaska, 49% said they were dissatisfied or very dissatisfied with parent or community support (Hirshberg et al., 2014).

Teacher turnover can also have a negative impact on communities as well with residents being unwilling to invest in developing relationships with teachers who they believe may not stay in the community. This can lead to a cycle of teachers feeling that they are unsupported and are not part of the community, while at the same time, residents may perceive schools as being distant and disconnected from the community. While it may be time consuming, it is important for new teachers to learn about the culture and values of the community in which they teach. It can be challenging for teachers to effectively work with the people and respect their culture if new teachers do not learn about the community in which they teach (Williams, 2012).

Teachers living in remote rural villages may find that cultural differences between the prevailing Native Alaskan culture of the rural village and their prior experiences in

the ‘lower 48’ states. Alaska is home to many Alaska Native cultures, each having its own distinct language, belief systems, traditions, and cultural practices. Additionally, each village can have its own ways of doing things that are unique to the location. This can make it challenging for non-Native Alaskan teachers to adapt to their new environment and to learn how to work effectively within rural Native Alaskan communities that may operate much differently than communities on Alaska’s road system or in the lower 48 (Alaska Teacher Placement, 2017).

Lack of Community Amenities. In most rural Alaskan villages, grocery and shopping options can be very limited (perhaps with one small general store), while entertainment, and other amenities found in lower 48 towns or cities may be non-existent. Access to television, internet, and cell phones can also vary considerably depending on the village and may or may not be available. This restricted access can require a significant change in lifestyle for teachers moving from another location, or require significant advance planning and the available funds to arrange for individual needs.

*Teacher Dissatisfaction and Turnover in Rural Alaska.* In the Spring of 2013, Hill (2014) invited all rural Alaska teachers to participate in a survey about their perceptions of their working conditions. Of the rural Alaskan teachers responding, 50% reported dissatisfaction with parent and community support, over 40% reported dissatisfaction with school district leadership and student conduct, and around one-third reported dissatisfaction or strong dissatisfaction with school leadership, instructional materials or resources, and teacher workload. Only 14% expressed dissatisfaction or strong dissatisfaction with their financial compensation (see Figure 34) (DeFeo et al., 2018).

| Job Satisfaction for Teachers Staying in and Leaving Rural Alaska |   | Percent Disagree/Strongly Disagree    |           |
|---|---|---------------------------------------|-----------|
| =   |   | Leavers                               | Stayers   |
| <b>Parent &amp; community relationships</b>                       |   |                                       |           |
|   | The community is supportive of this school.**                                     | 58                                    | 24        |
|   | Families and community support teachers, contributing to student success.**       | 70                                    | 41        |
|   | Families and the community understand and support policies for student conduct.** | 70                                    | 45        |
|   | This school maintains clear communication with the community.*                    | 42                                    | 27        |
|   | Families are involved and supportive of the school.                               | 54                                    | 42        |
|   | Parents/guardians are influential decision makers in this school.                 | 44                                    | 44        |
| <b>School &amp; district administration</b>                       |   |                                       |           |
|   | Administrators provide feedback that helps teachers improve.**                    | 54                                    | 29        |
|   | Administrators recognize teachers' accomplishments.**                             | 54                                    | 30        |
|   | Teacher performance is assessed objectively.**                                    | 44                                    | 24        |
|   |   | Dissatisfied/Strongly<br>Dissatisfied |           |
|   |   | Leavers                               | Stayers   |
| <b>Community characteristics</b>                                  |   |                                       |           |
|   | Transportation infrastructure**   | 52                                    | 23        |
|   | Entertainment**   | 52                                    | 23        |
|   | Housing**   | 32                                    | 18        |
|   | Relationships/friendships**   | 24                                    | 9         |
|   | Recreation*   | 32                                    | 14        |
|   | Cultural events*  | 24                                    | 11        |
|   | Access to health care*  | 60                                    | 40        |
|   | Shopping  | 52                                    | 39        |
|   | Access to internet and communication  | 24                                    | 25        |
|   | <b>Salary &amp; compensation</b>  | <b>19</b>                             | <b>13</b> |

*Note.* Adapted from Hill, et al., 2014. The asterisks (\*) indicate factors significantly correlated with teachers staying or leaving their assignments. The most strongly correlated factors are family and community support, school and district administration, and community characteristics. Whether or not a teacher was dissatisfied with salary was not significantly correlated with staying or leaving.

\*  $p < .05$

\*\*  $p < .01$

Source: DeFeo et al. (2018)

Figure 34. Job satisfaction for teachers staying in and leaving rural Alaska in 2013.

The following autumn (2013), Hill (2014) matched individual teacher responses with teachers remaining in their positions to determine which teachers stayed and left, which allowed for a correlation analysis between teacher dissatisfaction and leaving. It was found that teachers who left rural Alaskan school districts were significantly more likely to have been dissatisfied or very dissatisfied with job-related aspects of their work, including parent and community relationships, school and district administration, and community-related characteristics (such as options for entertainment, housing, or social relationships) (see Figure 34). Satisfaction with financial compensation was not found to be significantly correlated with the decision to stay or leave (DeFeo et al., 2018).

*Addressing Teacher Retention in Rural Alaska.* As long serving United States Senator Lisa Murkowski observed in a speech before the state legislature:

In many parts of rural Alaska the teacher turnover rate is 100 percent every three years. . . . Rural students, like students in urban Alaska, need predictability and stability to thrive, and that is hard to achieve when you have a completely new teaching staff every few years. (Felton, 2017, para. 8)

Consideration of the teacher working conditions in Alaska reveals that a multifaceted approach to policy and practice will be required to ameliorate patterns of teacher turnover and improve teacher retention rates in the state (DeFeo et al., 2017).

The growing body of evidence addressing the positive impacts of teacher retention (and negative impacts of teacher attrition) on student achievement has made teacher retention an important issue in Alaska. Many policies and sporadic programs, such as the Alaska Statewide Mentor Program, orientation camps about Native cultures for new teachers, and retention bonuses, have aimed to reduce detrimental teacher attrition in Alaska. However, since limited research is available concerning the causes of teacher attrition specific to rural Alaska, without a more detailed contextual

understanding of why teachers leave, current approaches may not be as effective as they could be at reducing teacher turnover (Kaden et al., 2014).

The limited amount of research-based information on predictors of teacher turnover in rural Alaskan schools that is currently available to educational leaders and policymakers restricts the ability to prescribe effective policy approaches to attempt to increase teacher retention in a strategic manner (Kaden et al., 2016). Rural Alaskan school districts would benefit from better understanding of teacher job satisfaction and why teachers leave so that their funds and human resources can be allocated in strategic ways to help maximize teacher retention and minimize teacher attrition (Kaden et al., 2016).

### **Section 2.3: The Theoretical Framework of the Study**

**Overview.** This section examines the theories used to frame the study and their application in prior research studies. The motivation-hygiene theory (Herzberg et al., 1959) that will be used to frame the determinants of teacher job satisfaction measured by the questionnaire survey instrument, will be discussed in detail, as well as related prior studies of teacher job satisfaction in PK-12 public education. A propensity to leave scale (Murray, 1998) will be utilized to frame the items on the questionnaire survey instrument that measure teacher indicated propensity to leave their positions. Studies in the field of education that utilize Herzberg et al.'s (1959) motivation-hygiene factors in conjunction with an employee propensity to leave scale (Murray, 1998) will be examined.

The section will provide informational headings on: Herzberg's motivation-hygiene theory, criticism of Herzberg's motivation-hygiene theory, the researcher's response to motivation hygiene theory criticism, application of the motivation-hygiene

theory in PK-12 education, and studies applying motivation-hygiene factors in conjunction with a propensity to leave scale.

### **Herzberg's Motivation-Hygiene Theory.**

**Herzberg.** Dr. Frederick Herzberg (1923-2000) was an American clinical psychologist and one of the most influential management thinkers and consultants in the latter half of the twentieth century. Herzberg devoted his professional efforts throughout his lifetime to examining the 'nature of man', what contributes to his or her satisfaction and dissatisfaction, and what motivates him or her to work and perform. Herzberg, also known as 'The Father of Job Enrichment', challenged the prevailing thinking on job satisfaction and motivation when he conducted a widely known study (Herzberg et al., 1959) on accountants and engineers to develop his two-factor theory known as the motivation-hygiene theory with contributions from Mausner and Snyderman. The Herzberg motivation-hygiene theory is one of the most discussed and studied, theories of job satisfaction and motivation (Grady, 1984).

**Herzberg's Initial Study.** Early in his career, Herzberg became interested in the factors that influence motivation. Herzberg completed a review of more than 2,000 articles on the subject of motivation and attempted to identify the trends. The review caused Herzberg to question whether the factors that influence job satisfaction and job motivation were aligned on a continuum as was typically assumed (Taylor, 1986).

Herzberg sought to identify the factors that affect job satisfaction and job motivation by analyzing semi-structured interviews that he conducted with 200 engineers and accountants using the critical incidents technique to ascertain employee attitudes about their jobs. Participants were asked questions to which they responded freely and

participant responses were recorded and then later placed into categories for quantitative analysis. The content of the interviews was analyzed and separated into individual events that led to a particular feeling (first-level factors); a description of the reasons for the feelings - needs, motives, and perceptions of the worker being interviewed (second-level factors); and the description of an event's effect on performance, job turnover, and mental health (third-level factors) (Herzberg et al., 1959). After a content analysis of the interviews of employees, a number of job factors were identified as having a significant relationship to job satisfaction and job dissatisfaction. Herzberg found that elements of job satisfaction were primarily influenced by intrinsic motivating factors while levels of job dissatisfaction were primarily influenced by extrinsic motivational factors (Herzberg et al., 1959; Herzberg, 1968/1987). Herzberg found that these factors could naturally be organized to form two separate dimensions (which were mutually exclusive of each other) which he referred to as *motivators* (or *satisfiers*) and *hygienes* (or *dissatisfiers*) (Grady, 1984; Katt & Condly, 2009).

***Hygiene Factors.*** Herzberg et al. (1959) found that ten factors that were related to a job environmental setting, the surrounding conditions of the job, extrinsic in nature, were more related to basic needs than psychological needs, and are the primary cause of job dissatisfaction. Herzberg termed these *hygiene factors* (also known as *maintenance factors* or *dissatisfiers*). The ten hygiene factors that Herzberg et al. (1959) identified include:

1. *Relationships with subordinates* - the quality of the relationships with those under the direct supervision of the employee.

2. Relationships with supervisors - the quality of the relationship with those individuals who supervise the employee.
3. Relationships with peers - the quality of the social interactions with others in similar roles at the worksite.
4. Supervision - supervisor competence and supervisor effectiveness in job-related matters.
5. Administrative policies and practices - adequacy or agreement with organizational policies and goals and objectives and related practices.
6. Job Impact on Personal life - aspects about a job that affects an individual's personal life.
7. Job security - feelings regarding the certainty of future gainful employment.
8. Working conditions - the physical environment of the work site, amount of work involved, hours and days worked.
9. Job status with respect to others - employee status with respect to others
10. Salary and benefits - employee compensation

Hygiene factors were defined as factors that contribute to preventing job dissatisfaction if not adequately maintained. The term hygiene was chosen to label these factors because of the comparison to the medical field where preventative maintenance allows for the prevention of health hazards, rather than creating health (Whitsett & Winslow, 1967).

Herzberg postulated that workers will seek to avoid perceived unpleasantness in the workplace and that the fulfillment or maintenance of hygiene factors does not make an employee satisfied or motivated, rather it removes the unhappiness or dissatisfaction from the working environment. Thus, if hygiene factors are considered inadequate by a



worker, it causes employee job dissatisfaction and will cause an employee to seek employment elsewhere. Herzberg found that if hygiene factors are not satisfied, employee work efficiency will typically decrease (Grady, 1984; Hui & Tsui, 2015).

***Motivators.*** Herzberg et al. (1959) also found that people were satisfied or motivated six factors that are intrinsic in nature, and are more closely related to the job and emotional and psychological needs than hygiene factors, which involve the actual doing of the job, and are the primary cause of job satisfaction. Herzberg termed these factors termed *motivators* (also termed *satisfiers*). The six factors that Herzberg identified include:

1. *Achievement* - feelings related to personal accomplishment for completing a difficult or challenging task, successful problem solving, and seeing the results of one's efforts.
2. *Recognition* - acknowledgement or praise from others in relation to work performance.
3. *Work Itself* - engaging in meaningful work as perceived by the employee, satisfaction derived from doing the work or tasks.
4. *Responsibility* - independence in completing work tasks, input into the tasks themselves, and reasonableness of assigned tasks.
5. *Growth* - the opportunity for personal and professional growth on the job site.
6. *Advancement* - the opportunity for change in promotion or status within the organization.

Herzberg found that motivators helped produce positive attitudes towards work, were found to be related to periods of improved worker performance and effort, and

helped to actively create job satisfaction among employees (Grady, 1984; Hui & Tsui, 2015).

***Postulation of the Motivation-Hygiene Theory.*** From these findings, Herzberg postulated a two-factor theory of job satisfaction known as the motivation-hygiene theory (m-h theory). A key attribute of Herzberg's theory is that job satisfaction and the factors that contribute to it are separate from job dissatisfaction and its associated factors. Therefore, according to Herzberg's motivation-hygiene theory, job satisfaction and job dissatisfaction should not be viewed as opposite poles of the same continuum, but instead operate on two separate linear scales. As such, the opposite of job satisfaction should be seen as 'no job satisfaction' while the opposite of job dissatisfaction is 'no job dissatisfaction' (Whitsett & Winslow, 1967).

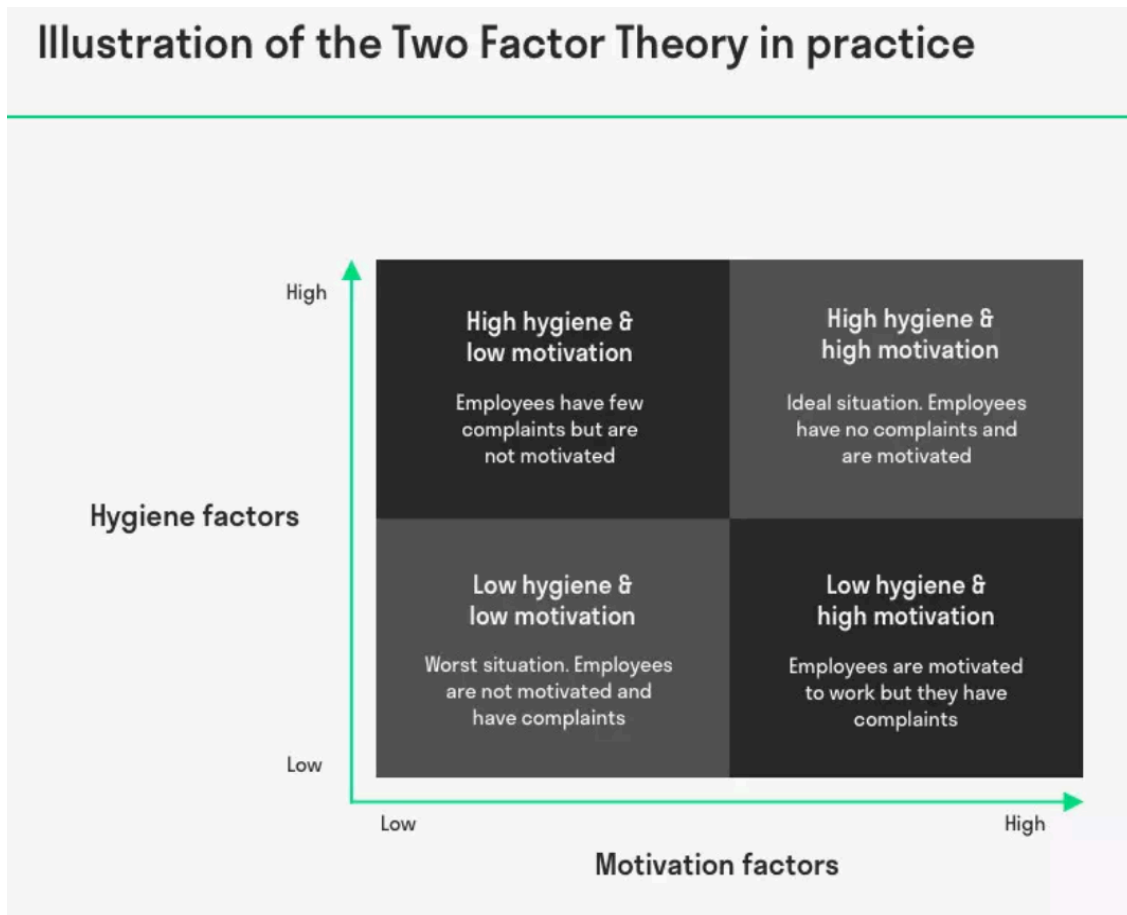
Herzberg's motivation-hygiene theory operates its two separate linear models according to two separate human needs. Hygiene factors are oriented towards the basic human needs to avoid unpleasantness or pain. Therefore, in the work setting, it is the nature of the worker to seek to avoid harmful policies and administration, poor supervision, negative personal relationships, inadequate working conditions, low-esteem, and poverty (Strachan, 1975). The maintenance of hygiene factors do not promote or lead to growth, but their absence can promote conditions conducive to growth.

Conversely, motivators are oriented to human needs for growth and achievement and relate directly to self-realization and psychological feelings of accomplishment. Due to this relationship, motivator factors cannot relieve pain, nor can hygiene factors satisfy human growth needs, and hygiene factors satisfy basic human needs, while motivator factors satisfy psychological needs. Therefore, according to Herzberg et al. (1959)

hygiene factors (extrinsic) and motivator (intrinsic) factors have an inverse relationship - motivator factors tend to create motivation when they are present, while hygiene factors tend to reduce motivation when they are absent. Thus for workers to reach their potential, they must experience the maintenance of hygiene factors and the presence of motivators (Katt & Condly, 2009).

Herzberg asserted that the reason for the two factor or dualistic nature of his findings is human expectation. Extrinsic factors (e.g., salary, benefits, suitable working conditions) are largely expected by employees of their employers, so their presence will not tend to increase their work related motivation. The presence of intrinsic factors (e.g., challenging and rewarding work) on the other hand, do not tend to be taken for granted by employees, so their presence in the workplace tends to serve as added motivation. Herzberg's two factor theory allowed for four possible possible combinations of motivator and hygiene factors (see Figure 35):

1. High hygiene + High Motivation = The ideal work environment where workers have few complaints and high levels of motivation.
2. High Hygiene + Low Motivation = Workers have few complaints, but are not highly motivated. Employees seek satisfaction outside of the workplace.
3. Low Hygiene + High Motivation = Employees are motivated, but employees have a lot of complaints. The job may be exciting and challenging, but working conditions lead to worker stress and potential turnover.
4. Low Hygiene + Low Motivation = The worst conditions. Employees have many complaints, are not motivated, and are prone to turnover (Crehan, 2016).

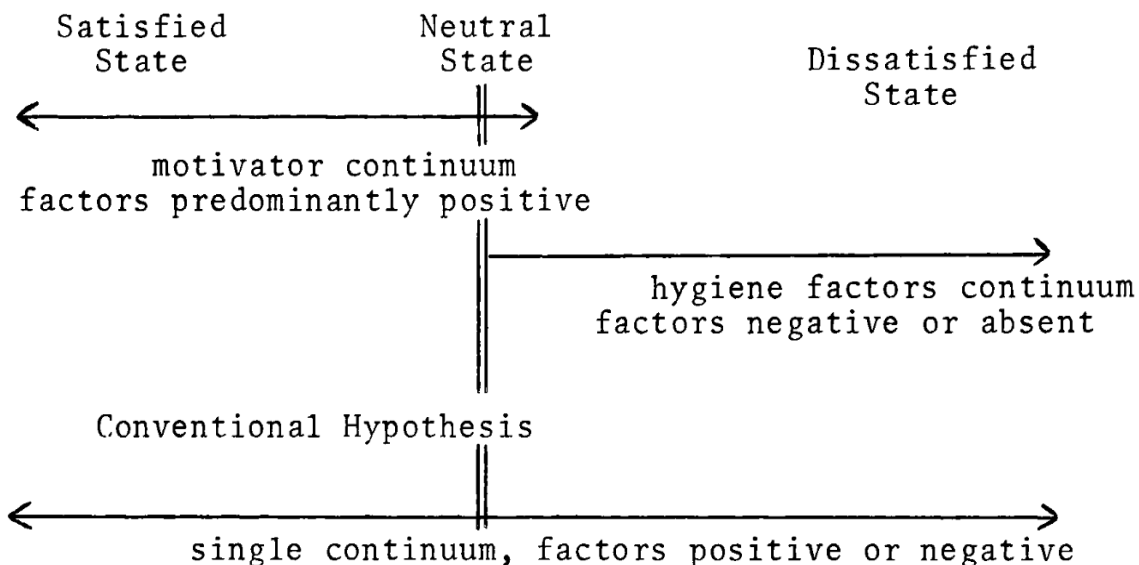


Source: Kuijk (2018).

*Figure 35.* Illustration of the two factor theory in practice.

This concept was very different from traditional job satisfaction models that preceded Herzberg's research. Prior to Herzberg, models of job satisfaction tended to view job satisfaction as a total sum of feelings that an individual has about their job. According to traditional job satisfaction models, increased job satisfaction necessitates decreased job dissatisfaction, and increased job dissatisfaction necessitates decreased job satisfaction, due to job satisfaction and job dissatisfaction being polar opposites on the same continuum (Grady, 1984) (see Figure 36).

### Motivator-Hygiene Hypothesis



Source: Stracham (1975)

*Figure 36.* Motivator-hygiene hypothesis.

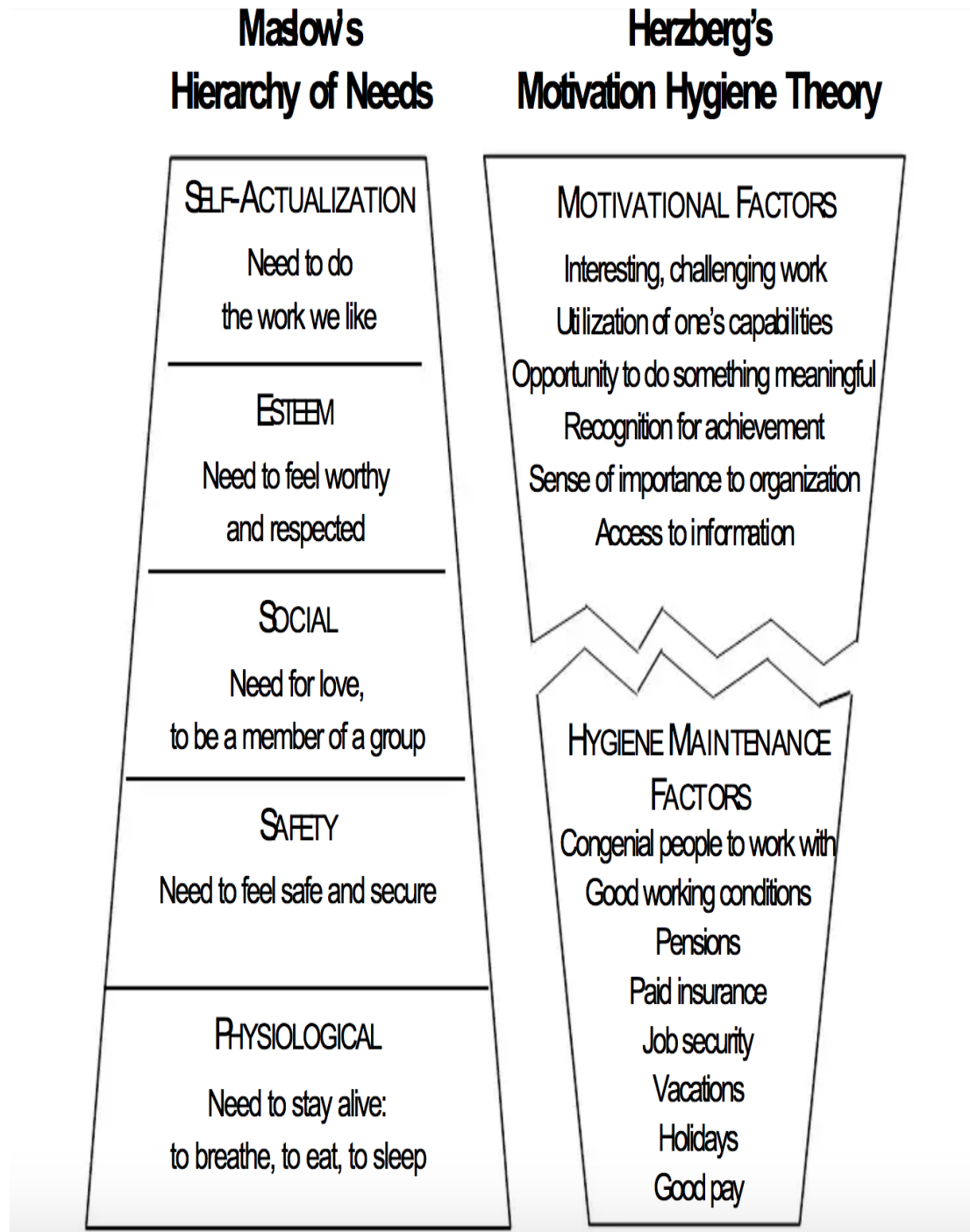
In addition to the dual factor or bifurcated nature of the model, one unique and fundamental point to the understanding of Herzberg's Motivation-Hygiene Theory is that data collected on employees based on motivation-hygiene factors will have no predictive power concerning the 'overall satisfaction' of an organization since the bifurcated nature of the theory did not lend itself to this type of unidimensional measure (Standish, 1982).

Therefore, from a practical perspective, Herzberg believed that managers should first focus efforts on maintaining hygiene factors (eliminating the dissatisfaction caused through their lack of maintenance) through altering policies, practices, supervision, and working conditions related to the job environment, which will lead to stable work conditions and retention of employees. Once this is achieved, managers should seek to provide job enrichment through presenting opportunities for workers to assume

responsibilities and receive recognition and obtain status for superior work, which will serve to enable motivator factors that will lead to enhanced worker satisfaction and worker performance (Herzberg et al., 1959).

While Herzberg's theory asserts that job satisfiers are motivators, it would be incorrect to conclude that no one can be motivated by hygiene factors. In some cases, dissatisfiers or hygiene factors can create motivation. For typical people, however, the norm seems to be to respond as Herzberg's m-h theory suggests. Typical individuals who cannot receive satisfaction on the job will inevitably seek this satisfaction outside of work in other arenas. This satisfaction could be found at home, in one's free time, or through leisure activities. Individuals who do not find satisfaction at work, are more likely to be affected by hygiene factors (Grady, 1984).

***Relationship to Maslow's Hierarchy of Needs.*** Since the time Herzberg's theory was advanced, the hygiene factors and motivators characterized by Herzberg have been augmented by concepts of motivation theories of other theorists (particularly Maslow and those influenced by Maslow). The commonalities between these theories are now apparent. The hygiene factors of Herzberg's dual-factor theory largely correspond to the lower levels of Maslow's hierarchy of needs: physiological needs, safety needs, and the social need of belonging. The motivator factors of Herzberg's dual factor theory can be viewed as similar to the higher level self-actualization and esteem needs of Maslow's hierarchy of needs (see Figures 37 and 38) (Juozaitiene & Simon, 2011). Therefore, it is possible to "apply Herzberg's Theory coupled with Maslow's Hierarchy of Needs. This serves to strengthen Herzberg's Theory as it simplifies its application as a strategy to motivate employees. By identifying the needs in Maslow's hierarchy, the hygiene and



Source: Brokke (2001)

Figure 37. Herzberg's motivation-hygiene factors compared to Maslow's hierarchy of needs.



Source: Giertz (2016)

Figure 38. Herzberg's and Maslow's theories in relation to job satisfaction and retention.



motivator factors can be obtained and subsequently fulfilled” (Yew & Manap, 2012, para. 8).

***The Lasting Influence of Herzberg’s Theory.*** According to Locke (1976), the publication of Herzberg’s study in 1959 led to a new trend in the study of job satisfaction, serving to refocus attention on the work itself, which previously had been deemphasized (Ulricksen, 1996). This new emphasis on the work itself suggested that improving employee retention, motivation, and performance could be accomplished through strategic redesign of the work itself (to reduce employee dissatisfaction related to hygiene factors and increase employee satisfaction through allowing workers to grow in areas related to motivator factors) (Ulricksen, 1996).

#### **Criticism of Herzberg’s Motivation-Hygiene Theory.**

***Applicability to All Types of Workers.*** Criticism has been found surrounding Herzberg’s belief that the motivation-hygiene theory applied to all types of workers. Since according the motivation-hygiene theory, worker satisfaction involves realizing factors contributing to self-actualization, it has been suggested that the motivation-hygiene theory applies less to employees with largely unskilled jobs with more limited opportunities in the workplace to achieve motivator factors, than it would to white collar jobs where Herzberg’s motivator factors have more potential to be realized (Dartey-Baah, 2011).

It has also been suggested that all groups or subsets of workers may not respond to motivator and hygiene factors in the same way. For example, Tutor (1986) in a study of the Tennessee Career Ladder Program (TCLP), and Bellott and Tutor (1990) concluded that not all employees are equally motivated by Herzberg’s motivator factors,

and that teachers were especially were more motivated by hygiene factors (Gawel, 1997; Myers, 1992).

***Applicability to All Individuals.*** In addition to differences in how subsets of workers respond to motivation-hygiene factors, there may be substantial differences between how individual workers respond to these factors that may need to be accounted for. Some scholars (e.g., Hackman & Oldman, 1976) have asserted that Herzberg's motivation-hygiene theory does not adequately take into account differences in individual employees (with the motivation-hygiene theory implying that all employees will react similarly to changes in motivation and hygiene factors, when this is not necessarily true in individual cases).

***Motivation vs. Job Satisfaction.*** According to Katt and Condly (2009), due to Herzberg's examination of the affect behind motivation, as opposed to directly studying motivation, some scholars have asserted that that the construct that Herzberg's motivator and hygiene factors influence is more accurately described as job satisfaction rather than motivation (e.g., House & Wigdor, 1967; Whitsett & Winslow, 1967). While Herzberg's assertions about the connection between job satisfaction and motivation may have been intuitive at the time, subsequent motivation research affirms the connection between job satisfaction affect and motivation that is inherent in his theory (Katt & Condly, 2009). According to Katt and Condly (2009), citing Edwards, (1999); Ekman, (1994); Ford, (1992); Lazarus, (1991); Payne, (2001); Schunk, (2008); and Weiner, (1985, 1992), since the time that Herzberg advanced his motivation-hygiene theory, subsequent research has provided substantial support for the connection between affect and motivation. While

job-related affect does not equal motivation, research indicates that it influences the motivation levels that individual's experience about their work (Katt & Condly, 2009).

***Dual Factor vs. Single Factor.*** Although Herzberg's identified motivation and hygiene factors have generally been accepted as influencing employee job satisfaction, there is some disagreement in the literature about whether motivation and hygiene factors should be seen as two distinct types of factors on separate linear scales (as Herzberg postulated), or whether hygiene factors may also be types of motivating factors that affect job satisfaction (as in more traditional models) and it is the use and interpretation of the critical incident technique that lends itself to finding the separate dimensions of motivator and hygiene factors (Dartey-Baah, 2011). Despite this disagreement, the preponderance of studies have continually found that Herzberg's motivator factors and hygiene factors are valid for the investigation of job satisfaction, however they are conceptualized (Hui & Tsui, 2015).

**The Researcher's Response to Motivation-Hygiene Theory Criticism.** Due in part to the substantial number of successful studies in the field of education that have used the motivation-hygiene theory to examine teacher job satisfaction, it is the belief of the researcher that the motivation-hygiene theory has demonstrated its suitability for use for the group of teachers that are the subjects of this study. While the motivation-hygiene theory might not as fully capture the complexity of the thinking of each individual as some other models, this study is focused at the organizational level, so that generalizations about teacher job satisfaction and propensity to leave can be made that allow for the development of strategic policies and practices aimed at increasing rates of teacher retention. As such, it is acceptable to sacrifice some degree of insight at the

individual level in order to gain greater applicability of the study in the formulation of educational policy and practice at the organizational level.

While Herzberg's motivation-hygiene theory most directly measures job related affect or job satisfaction rather than motivation per se, a number of subsequent studies have demonstrated the influence of employee job satisfaction on employee motivation (Katt & Condly, 2009). While the body of research does support a connection between job satisfaction and motivation, this study does not solely rely on this relationship to examine teacher turnover. Instead, the questionnaire survey instrument utilized for this study establishes a more direct relationship between job satisfaction and teacher motivation to leave through use of a propensity to leave scale. The survey instrument collects data related to teacher self-reported propensity to leave (as opposed to inferring this through levels of job satisfaction/motivation).

It is acknowledged that there is a possibility that the results of this study may indicate (as some prior studies have found) that the teachers in this study are satisfied by hygiene factors, as well as by motivators (in contrast to Herzberg's findings that hygiene factors generally do not satisfy/motivate workers, but serve primarily to dissatisfy/demotivate workers). For the purposes of this study, which is rooted in practice and aimed at gaining insight into the relationship between teacher job satisfaction and teacher propensity to leave the school, school district, and the teaching profession it is less significant to stipulate whether hygiene factors should be viewed as a separate construct on a separate linear scale from motivator factors (as Herzberg postulated) or instead should be viewed as a subset of motivators on a common scale (as in a traditional model), than it is to ascertain which of these job related variables appear to most contribute to

teacher satisfaction and dissatisfaction and teacher propensity to leave their positions - so that policies and practices aimed at maximizing teacher job satisfaction, minimizing teacher propensity to leave, and maximizing teacher retention can be developed.

It is the view of the researcher that the usefulness of the motivation-hygiene theory to this study is demonstrated through its ability to capture teacher satisfaction and dissatisfaction in valid terms for the purposes of analysis - and in clear, comprehensible, and practical terms for the subsequent development of strategic policy and practice. It is believed that the use of motivation-hygiene factors will allow for the documentation of what teachers experience in terms of job satisfaction and dissatisfaction which is the primary pragmatic consideration. If the study does not replicate Herzberg's bifurcated findings, this will be of scholarly interest, but this will not inhibit the applicability of the study's results to the development of strategic policy and practices aimed at increasing rates of teacher retention.

#### **Application of the Motivation-Hygiene Theory in PK-12 Education.**

Herzberg's motivation-hygiene theory has been applied in numerous PK-12 elementary and secondary educational settings. A number of studies involving PK-12 teachers have upheld the factors that Herzberg claimed are satisfiers and dissatisfiers (Grady, 1984). With elementary and secondary teachers, job satisfaction seems to be consistent with the basic contingency outlined by Herzberg in the majority of studies (Grady, 1984), however, various studies in PK-12 education have supported, supported in part, and refuted the bifurcated or dual factor nature of Herzberg's motivation-hygiene theory. Herzberg's theory has served as the theoretical framework for numerous studies (both

using questionnaires, as well as interview techniques), and the findings of many others have been analyzed in terms of their level of alignment with motivation-hygiene factors.

Some of the known studies in PK-12 education using motivation-hygiene factors as a theoretical framework for data collection and/or analysis include: Sergiovanni (1967-New York teachers); Jaycox and Tallman (1967-Los Angeles elementary teachers); Hansen and Stanley (1970-Los Angeles secondary teachers); McGreal (1968-Illinois teachers); Bishop (1969-Iowa teachers); Passalacqua (1970-Michigan teachers); Wickstrom (1971-Saskatchewan teachers); Tammen (1971-junior high school teachers); Miskel (1974-industrial managers, school administrators, teachers); Bemby (1975-Iowa business teachers); Strachan (1975-Ottawa teachers); Schmidt (1976-suburban Chicago administrators); Wainright (1977-Virginia principals); Godfrey (1978-Department of Defense principals); Lawrence (1979-Virginia elementary school principals); Sullivan (1981-Wisconsin school administrators); Medved (1982-Midwest teachers); Friesen et al. (1983-Alberta principals); Young and Davis (1983-school superintendents); Goodson (1984-Alabama elementary teachers); Cates (1984-North and South Carolina teachers in Christian schools); Helms (1984-elementary and middle school teachers); Tutor (1986-Tennessee teachers); Taylor (1986-Florida elementary school teachers); King et al. (1988-Ontario teachers); Pederson (1989-teachers); Rasmussen (1990-Los Angeles teachers); Caldwell (1992-teachers); Phelps (1995-Los Angeles area principals); Dvorak and Phillips (2001-high school journalism teachers); Kaski (2009-Finland teachers); Greene et al. (2011-rural Virginia elementary teachers); Juozaitiene and Simon (2011-Lithuanian teachers); James (2013-Ohio agriculture teachers); Islam and Ali (2013-Pakistani teachers); Waga and Simatwa (2014-Kenyan elementary teachers); Chu and

Kuo (2015-Taiwanese elementary teachers); Atalic et al. (2016-Turkish teachers); and Giertz (2016-Ethiopian teachers).

*Studies Applying Motivation-Hygiene Factors in Conjunction with Propensity to Leave.* Murray (1998), Murray et al. (2000), Rosser and Townsend (2006), and Stech (2014) found that Herzberg's motivation hygiene factors work well in conjunction with a propensity to leave scale to examine the relationship between determinants of job satisfaction and teacher propensity to leave. This study will also utilize motivation-hygiene factors used in conjunction with a propensity to leave scale to examine the relationship between determinants of teacher job satisfaction and teacher propensity to leave.

Murray (1998) studied the job satisfaction and the propensity to leave of two-year college division chairpersons. Murray (1998) used instrumentation that drew on a satisfaction/dissatisfaction scale adapted from Wood (1973) and a role perception questionnaire from Rizzo, House, and Litzman (1970), which included Herzberg's motivation-hygiene factors to measure job satisfaction, in addition to a propensity to leave index adapted from Lyons (1967), based on the work of March and Simon (1958), that measured employee intent to leave. Murray's (1998) questionnaire survey instrument used Likert scales to collect data allowing for an examination of the relationship between faculty member job satisfaction and their indicated propensity to leave their position. The researcher mailed the questionnaire to 600 randomly selected two-year college division chairpersons across the nation. The survey asked college chairpersons to rate their job satisfaction according to Herzberg's motivation and hygiene factors. Murray also asked the college chairpersons to rate their desire to remain in their current position and their desire to remain at their current institution. By asking these

two questions, the researcher was able to create a frequency distribution in order to calculate the propensity to leave which could be compared with job satisfaction factor responses. Murray (1998) found that job dissatisfaction had a direct effect on employee propensity to leave. The study found that community college academic chairpersons had a low propensity to leave due to their high levels of satisfaction with their jobs.

Respondents reported feeling most satisfied with the work itself, interpersonal relations, achievement, and responsibility. Respondents reported feeling least satisfied with salary, supervision, and growth.

Murray et al. (2000) used a questionnaire with the same instrumentation that was utilized by Murray (1998), which included using a Likert scale and Herzberg's motivation-hygiene factors to measure job satisfaction, in addition to a propensity to leave scale that measured employee intent to leave. By using this survey instrument, the researchers were able to examine the relationship between job satisfaction and the propensity of chief academic officers to leave their positions. Surveys were mailed to a random sample of 250 participants and a 48% response rate was achieved. Data was compiled through a frequency table and intent to leave was calculated. Respondents reported high levels of job satisfaction, while nearly 38% of respondents indicated they had a high propensity to leave their current position. Most of the respondents that had a high propensity to leave indicated that the reason for their desire to leave was seeking career advancement or retirement as opposed to aspects of job dissatisfaction.

Rosser and Townsend (2006) focused on community colleges and examined data from more than nine hundred educators. The questionnaire survey items that were used were based on the factors of Herzberg's motivation-hygiene theory. The researchers



collected and aggregated data about faculty propensity to leave from two 3-point scale questions that asked how likely faculty members were to leave their career and their position at their institution. The study found that faculty job dissatisfaction and intent to leave were directly related and that intent to leave could not be predicted through most faculty demographic variables.

Stech (2014) examined job satisfaction and propensity to leave among new and experienced faculty members at Iowa Western Community College. A questionnaire survey instrument using a Likert scale and Herzberg's motivation-hygiene factors to measure job satisfaction in conjunction with a propensity to leave scale was sent to 228 faculty members. The study found that both new and experienced faculty were generally satisfied with their job which corresponded with a low faculty-indicated propensity to leave. There was a negative correlation between overall job satisfaction and overall propensity to leave, with the higher job satisfaction level, the lower the propensity to leave.

### **Summary**

Due to a number of geographical, historical, and cultural considerations, Alaska is a state that differs considerably from any other state in the union. Due to the sheer size of the state, the variety of settings ranging from urban modern to rural, native, and traditional, and the wide variety of peoples, languages, and cultures found in the state, many areas of the state are unique unto themselves. The Bering Strait School District in Western Alaska is no exception to this trend, where 15 villages with unique histories, linguistic dialects, and cultures are served by the 15 schools in the district. Sweeping changes have occurred in the past 100 years in the region as nomadic peoples have

established villages and schools and have been heavily influenced by Caucasian values with respect to technology, laws, religion, economics, and schooling. Despite these changes, Alaska Natives groups maintain unique cultural lifestyles, traditions, and beliefs that influence the nature of schooling in the Bering Strait School District.

While much is known about teacher job satisfaction and teacher retention and turnover nationally, progressively less is known about these factors in the state of Alaska, and in rural areas of the state. A substantial body of research indicates that levels of teacher job satisfaction influence teacher propensity to leave (turnover intention), which in turn influences actual turnover. Further studies in a variety of educational settings in Alaska are needed to establish greater understanding of the conditions that contribute to teacher satisfaction and teacher turnover so that educational practitioners in the state can make informed decisions.

Although there are a number of theories that may be valid for research, Herzberg's motivation-hygiene theory was selected to frame the determinants of job satisfaction for this study. The body of literature reviewed in this chapter indicates that the motivation-hygiene theory has broad applicability in educational studies. Additionally, Herzberg's theory is conducive for the testing of several rural Alaska job factors that have been identified in the literature - assigned/available teacher housing, rural village amenities, and village connectedness. The literature reviewed found that teacher propensity to leave is often influenced by levels of job satisfaction. Prior studies (e.g., Murray, 1998; Stech 2014) have used a propensity to leave scale on a questionnaire survey in conjunction with job satisfaction variables from Herzberg's motivation-hygiene theory to examine the relationship between elements of educator job satisfaction and

teacher indicated propensity to leave. This pairing of constructs will also be utilized in the theoretical framework of this study.

Research studies that have specifically focused on teacher job satisfaction and propensity to leave in rural Alaskan settings have been found to be lacking. This review of relevant literature did not reveal any studies related to Alaska teacher job satisfaction that examined Herzberg's motivation-hygiene factors and propensity to leave. It is hoped that this study may provide insight into the relationship between teacher job satisfaction variables and teacher propensity to leave in rural Alaska.

## **Chapter III**

### **Research Methodology and Procedures**

#### **Organization of Chapter III**

Chapter III will examine the methodology for this quantitative study. Aspects covered in this chapter will include the quantitative research approach, validation strategies, ethical considerations, the former role of the researcher, institutional review board approval, anonymity of participants, compensation for survey participants, data collection procedures, research questions, statistical analysis procedures, and chapter summary.

#### **Chapter Overview**

This quantitative study focuses on the PK-12 teacher job satisfaction and the propensity of teachers to leave the Bering Strait School District, in the Bering Strait region of rural Western Alaska. Herzberg et al.'s (1959) motivation-hygiene theory was used as the theoretical framework for job satisfaction constructs on the survey instrument. A propensity to leave scale (Murray, 1998) was used to frame the constructs of teacher propensity to leave incorporated in the development of the questionnaire survey instrument. The questionnaire survey instrument contains thirty-two items related to teacher job satisfaction and propensity to leave on which respondents will provide information using a Likert scale. Permission to seek teacher voluntary participation in the survey was sought and received from the superintendent of the Bering Strait School District (Appendix B). The questionnaire survey was delivered to each teacher's email address through the school district's teacher email listserv. Demographic information about the teachers was collected for a better understanding of teacher satisfaction and

their propensity to leave in the Bering Strait School District. The anonymity of the participants in the study (teachers completing surveys) was preserved at all times. The identities of the individual teachers completing the surveys was unknown to the researcher. Quantitative statistical procedures commonly used in the social sciences were utilized to analyze the data that is collected and examine the relationship between teacher job satisfaction and teacher indicated propensity to leave.

### **The Quantitative Research Approach**

This study utilized a quantitative research approach. A quantitative research approach is used to test objective or measurable theories by examining the relationship between variables (Creswell, 2009). A questionnaire survey instrument was chosen as the mode of collecting quantitative data for this study. A questionnaire survey instrument “provides a quantitative or numeric description of trends, attitudes, or opinions of a population” (Creswell, 2009, p. 12), which is what is sought in this study to understand trends in teacher job satisfaction and propensity to leave.

It was hoped that by utilizing a self-administered, closed-ended-questionnaire for the study, a large amount of general information from the whole population of teachers in the Bering Strait School District could be gathered that could be analyzed to identify trends with respect to teacher job satisfaction and teacher propensity to leave. The questionnaire was distributed by email. The questionnaire survey items for this study were inspired by a questionnaire survey instrument utilized by Stech (2014), in a study of community college faculty, that measured employee job satisfaction according to many of Herzberg’s motivation-hygiene factors, and included items asking about employee propensity to leave. The questionnaire used in this study included items asking

about teacher perceptions of their satisfaction/dissatisfaction with respect to Herzberg's (Herzberg, 1968/1987; Herzberg et al., 1959) motivation-hygiene factors (questionnaire items 1-18), in addition to three rural Alaska job factors identified in the literature - assigned/available teacher housing, rural village amenities, and village connectedness (questionnaire items 19-21) - in order to collect data regarding teacher perceptions of their living conditions in rural Alaska. The questionnaire also contained items asking about teacher perceptions of their propensity to leave (items 23-26), as well as items collecting data with respect to teacher demographic variables (items 27-32). The questionnaire items were scripted in relation to the key variables of the study.

As noted earlier in Chapter II, Skaalvik and Skaalvik (2011) observed that teacher job satisfaction "has been studied as both: (a) a facet-specific job satisfaction measuring the extent to which teachers are satisfied with specific aspects of their job, and (b) an overall sense of satisfaction with the job" (p. 1030). In Skaalvik and Skaalvik's (2011) study of teacher job satisfaction and motivation to leave the teaching profession, it was pointed out:

A problem with the facet-specific approach [to job satisfaction] is that different circumstances may be more important to different teachers. As a result, such measures overlook the fact that the impact of different circumstances on overall job satisfaction is dependent on how each of the circumstances is to the individual teacher . . . we therefore measured teachers' overall sense of job satisfaction and analyzed the degree to which teachers' perception of school context variables predicted overall job satisfaction. (p. 1030)

A similar conclusion was reached in the context of this study, and accordingly, the questionnaire survey instrument was designed so that teachers in the study were asked about their perception of their overall job satisfaction (questionnaire item 22), as well as about their perceptions related to facet specific work related variables (questionnaire

items 1-21), so that the relationship between teacher reported satisfaction/dissatisfaction with respect to specific job facets, and teacher reported overall job satisfaction could be analyzed.

The decision to utilize a likert scale as opposed to the critical incident technique previously utilized by Herzberg was made based on several considerations:

1. Due to the numerous studies that have been conducted utilizing Herzberg's model (many of these confirming the relationship between Herzberg's motivation and hygiene factors and job satisfaction) an established list of motivation and hygiene factors now exists that is supported by a body of research. While the critical incident technique was originally invaluable in identifying these specific factors, at this juncture, the critical incident technique is not necessary to collect data from teachers concerning how identified motivation and hygiene factors impact teacher job satisfaction (given that a body of supporting research that now exists identifying these factors).
2. It is believed that a questionnaire survey instrument utilizing a likert scale is a more efficient method to collect data from a substantial number of teachers spread over a huge geographical area in rural Alaska than utilizing the critical incident technique would be. The time and financial resources required to conduct interviews of teachers in 15 rural Alaskan villages (accessible only by bush plane) would have been prohibitive for the researcher. While a critical incident questionnaire survey form could have been utilized, this method would likely have been much more time consuming for teachers to complete

than a questionnaire survey utilizing a likert scale. Use of a more time consuming critical incident survey form could potentially have resulted in a lower response rate for the study, which would have been undesirable.

3. This is one of many studies, both in the field of education and in other fields, that have utilized Herzberg's motivation-hygiene factors while adopting a quantitative questionnaire survey instrument for the collection of data (as opposed to using the critical incident technique).

**Validation Strategies.** Construct validity was ensured by the careful creation of survey items. Each item was created to measure Herzberg's motivation-hygiene factors, Alaska specific factors, and teacher propensity to leave. The researcher followed the concepts of the theories closely to ensure construct validity. The questionnaire was constructed using principles similar to prior studies utilizing motivation-hygiene factors and a propensity to leave scale (Murray, 1998; Stech, 2014). The questionnaire reflects specific needs for the PK-12 setting of the Bering Strait School District in rural Alaska (including questions about assigned/available teacher housing, and rural village amenities, and village connectedness), but still adheres to the theoretical principles of Herzberg's motivation-hygiene factors (Herzberg et al., 1959) used in conjunction with a propensity to leave scale (Murray, 1998).

Face validity for this survey was ensured through a review of the questionnaire survey instrument by three educators from outside of the Bering Strait School District. Educators from outside the school district were chosen because they were not part of the population to be surveyed, but being educators they were still broadly similar to the population that will be surveyed. These educators were asked to give feedback based on



the visual aspect of the questionnaire, the wording of the items, and clarity of the items on the survey.

Content validity was ensured by sharing the questionnaire with three teachers outside of the Bering Strait School District as a step in the questionnaire development. The content validators were not part of the population to be surveyed, but being educators they were aware of the research setting and well positioned to spot any issues. Some issues that content validators were asked to provide feedback on are: typographical errors, misspellings, numbering, font size, appropriateness of vocabulary, length of survey, time taken to complete, monotonousness, flow, cultural barriers, and language appropriateness.

The following questions were asked of content validators:

- Are there any typographical errors?
- Are there any misspelled words?
- Do the item numbers make sense?
- Is the type size big enough to be easily read?
- Is the vocabulary appropriate for the respondents?
- Is the questionnaire too long?
- Is the style of the items too monotonous?
- Does the questionnaire format flow well?
- Are the items sensitive to possible cultural barriers?
- Is the survey language appropriate for the respondents?

Feedback from the content validators was used to ensure that the questionnaire was comprehensible and accessible to the teachers participating in the study.

**Ethical Considerations.**

***Former Role of the Researcher.*** In the interest of full disclosure, the researcher was a former school administrator in 2 of the 15 schools in the school district in Alaska being studied, but at the time of writing resides and is employed in the state of Nebraska. Due to the quantitative nature of this study, data was collected and analyzed in an objective manner. The researcher did not allow former experience in the school district to bias data collection or analysis.

***Institutional Review Board Approval.*** The Institutional Review Board (IRB) at the University of Nebraska-Lincoln is composed of representatives that review research proposals to ensure that there is minimal risk for the human subjects that are taking part in this study. A request to undertake the study was presented to and approved by the institutional review board (Appendix C).

***Anonymity of Participants.*** Every effort was made to ensure the anonymity of the teachers participating in the survey and as such, there was minimal risk for the teachers participating in the survey. All data that was reported was reported in its aggregated form and was not attributable to individuals. The teachers in the entire school district (224 teachers, in 15 schools, in 15 villages) were collectively surveyed, and data was reported as aggregated district totals and will not be attributed to individuals or individual schools. While email addresses of survey participants were collected for the purposes of compensation (\$10 Amazon gift card), they were used exclusively for this purpose and were not associated with the questionnaire responses of individuals.

***Compensation for Survey Participation.*** Teachers who completed the questionnaire were provided compensation for their investment of their time, in the form

of a \$10 Amazon gift card, that was emailed to teachers at the email address that they provided in a separate survey link following the completion of the questionnaire (Appendix F). The compensation provided in this study was intended to offset the amount of time invested by participants, as well as serve as an incentive to participate, thereby ensuring an adequate response rate, that allowed for meaningful statistical analysis. Federal regulations do not set limits on the amount of compensation provided to participants in research, however, both researchers and the institutional review board are tasked with ensuring that the amount of compensation is appropriate to the context of the research, and that participants provide voluntary consent free from coercion or undue influence. The amount of compensation provided in this study recognized the participant investment of time (approximately 10 minutes) and provided a sufficient incentive for participation to ensure a healthy response rate, but was deemed by researcher and the institutional review board to not be so great as to be coercive or to put undue pressure on teachers to participate against their will.

#### **Data Collection Procedures Using the Questionnaire Survey Instrument.**

Potential survey participants (all of the teachers in the school district - 224 teachers, in 15 schools, in 15 villages) were sent an email with a cover letter explaining the purpose of the questionnaire and providing the web address URL to the questionnaire.

Participants followed the URL link to take the survey questionnaire. The questionnaire was administered through the web-based survey provider - [www.surveymonkey.com](http://www.surveymonkey.com) - which collected respondent data over a secure and encrypted connection. The first page of the online questionnaire included the consent form (Appendix D). Only those who consented were provided the questionnaire (Appendix E). Each participant was asked to

answer each item, but had the option of stopping the questionnaire or skipping an item at any time.

Conducting a survey over the internet is not always ideal, due to variability in individual preferences to use the medium. While some populations may not have access to the internet and may be more likely to exclude themselves from the survey, in this study, all of the subjects (teachers) had access to the internet and regularly used email and the internet in performing the duties of their job. For the purposes of this study, when surveying teachers in the Bering Strait School District, emailing the questionnaire to teachers was preferred to attempting to mail paper questionnaires. This is due to the email/internet-literate population being surveyed and due to the greater convenience that it allowed. It was believed that the greater convenience of completing a questionnaire online would also likely to increase the response rate.

The online questionnaire also fits the Alaskan context. Mail in many of the isolated Alaskan villages in the Bering Strait School District is slow in transition. There are no physical addresses in most Alaskan bush villages which means that all mail goes to post office boxes. Mailed survey questionnaires would have represented an inconvenience for study participants (many participants would have to walk in inclement weather to mail back questionnaires due to the unavailability of vehicles in rural Alaskan villages). Additionally, since in many villages the post office is only open during the hours of the teacher workday, mailing the survey back could prove to be a hardship. All Bering Strait School District teachers have a school district email address that they are expected to check during the workday. This is the email account that they use to communicate with administrators and fellow teachers. Since the participants in the study

check their email daily, they received the questionnaire in a timely manner, and teachers who chose to participate were able to complete the questionnaire in a timely manner.

The schedule for communication with teachers regarding the survey was as follows:

1. *First email*: The first email was sent out to all teachers in the school district on April 30, 2020. This email included an explanation of the study, a link to the questionnaire, and an explanation regarding the compensation for completing the questionnaire (Appendix G).
2. *Follow-up email*: A follow-up email was sent out on May 7, 2020 - one week after the first email. This follow-up email included a thank you to those that had already responded to the questionnaire and a reminder reiterating the initial request to those that had not (Appendix H).
3. *Final email*: A final email was sent out on May 14, 2020 - one week following the follow-up email. It included a thank you to those that had already completed the questionnaire and a reminder reiterating the initial request to those that had not (Appendix I).

Items 1-18 on the questionnaire asked participants about their perceptions of their satisfaction/dissatisfaction with respect to Herzberg's motivation-hygiene factors (item 9, interpersonal relations with supervisors, was ultimately not used for data analysis due to its collinearity with item 15, school level administration and supervision). Items 19-21 on the questionnaire asked about teacher perceptions of their satisfaction/dissatisfaction with respect to rural Alaska job factors identified in the literature - assigned/available teacher housing, amenities available in the village in which

teachers live, and teacher connectedness to and inclusion in the village in which they live. Item 22 on the questionnaire asked participants about their perception of their overall job satisfaction (overall level of satisfaction/dissatisfaction with their job). Item 23 on the questionnaire asked about the participant's likelihood to retire before the beginning of the 2020-2021 school year. If a participant replied 'very likely', 'moderately likely', or 'slightly likely' on item 23 (retirement) the participant skipped the next three items (items 24-26), which asked about the teacher's propensity to leave their school, the district, and the profession of teaching (the aim was to better understand propensity to leave due to factors other than retirement). If the participant's answer on item 23 (retirement) was one from the three unlikely categories, the participant completed the three items about their propensity to leave their school, their district, and the profession (items 24-26). The remaining items on the questionnaire (items 27-32) gathered demographic information about the participants (gender, age, educational level, years of service, significant other status, grade level taught), which was used to examine the relationship between demographic groups, satisfaction/dissatisfaction, and propensity to leave.

After completion of the questionnaire, the final page provided a link to another survey where the participants who wished to receive a \$10 Amazon gift card could enter their email address so that the gift card could be emailed to them (Appendix F). The use of a separate survey link ensured that the email addresses could not be associated with the questionnaire responses of individuals and preserved the anonymity of respondents.

**Research Questions.** Table 1 lists the research questions of the study alongside the relevant corresponding questionnaire items and the statistical method utilized.

Table 1

*Research Questions and Relevant Corresponding Questionnaire Items and Statistical Method Utilized*

| Research Questions   | Questionnaire Items  | Method  |
|--|--|---|
| <p><b><u>Research Question 1 (RQ1):</u></b><br/> <i>How do teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors, hygiene factors, and rural Alaska job factors? Do the satisfaction/dissatisfaction ratings according to these categories significantly differ?</i></p> <p><b><u>Sub-Questions:</u></b></p> <p><b><u>RQ1-SQ1:</u></b> <i>How do teachers in the Bering Strait School District rate their satisfaction or dissatisfaction with respect to motivator factors, hygiene factors, and rural Alaska job factors?</i></p> <p><b><u>RQ1-SQ2:</u></b> <i>Do the categories of motivator factors, hygiene factors, and rural Alaska job factors significantly differ in levels of teacher reported satisfaction/dissatisfaction?</i></p> | <p><u>motivation factor items:</u> Q1, Q3, Q5, Q12, Q13, Q18</p> <p><u>hygiene factor items:</u> Q2, Q4, Q6, Q7, Q8, Q9, Q10, Q11, Q14, Q15, Q16, Q17</p> <p><u>rural Alaska job factor items:</u> Q19, Q20, Q21</p> | <p><i><u>descriptive statistics; repeated measures ANOVA</u></i></p> <p><b><u>RQ1-SQ1:</u></b> The categorical data for teacher responses was coded by assigning numeric codes. A codebook was then created with a frequency table. 21 mean scores were calculated to describe teacher levels of satisfaction/dissatisfaction for each of the motivator factors, hygiene factors, and rural Alaska job factors. Category mean scores for motivator factors, hygiene factors, and rural Alaska job factors were calculated.</p> <p><b><u>RQ1-SQ2:</u></b> A repeated measures ANOVA test was used to determine if the categories of motivator factors, hygiene factors, and rural Alaska job factors significantly differed.</p> |
| <p><b><u>Research Question 2 (RQ2):</u></b> <i>Is a dual factor model of job satisfaction (as Herzberg theorized) supported by how teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors and hygiene factors?</i></p>   |  | <p><i><u>Descriptive statistics:</u></i></p> <p>The 18 mean scores that were calculated to describe teacher levels of satisfaction/dissatisfaction for each motivator factor and hygiene factor, and the category mean scores that were calculated for motivator factors and hygiene factors were used to determine if motivator factors principally contribute to satisfaction and hygiene factors principally contribute to dissatisfaction (as Herzberg theorized).</p>  |

Table 1 continues

| Research Questions  | Questionnaire Items  | Method  |
|---|--|---|
| <p><b><u>Research Question 3 (RQ3):</u></b><br/> <i>How do teachers in the Bering Strait School District rate their overall satisfaction/dissatisfaction with their teaching position?</i></p>  | <p><u>overall job satisfaction/dissatisfaction item:</u> Q22</p>   | <p><i><u>Descriptive statistics:</u></i></p> <p>The categorical data for teacher responses was coded by assigning numeric codes to questionnaire item 22. A codebook was then created with a frequency table. The mean score for teacher reported overall job satisfaction was calculated. Cross tabulations were performed with respect to teacher demographic variables.</p>  |
| <p><b><u>Research Question 4 (RQ4):</u></b><br/> <i>How do teachers in the Bering Strait School District rate their propensity to leave the school, the school district, and the teaching profession?</i></p>   | <p><u>propensity to retire item:</u> Q23</p> <p><u>propensity to leave the school item:</u> Q24</p> <p><u>propensity to leave the school district item:</u> Q25</p> <p><u>propensity to leave the teaching profession item:</u> Q26</p>  | <p><i><u>Descriptive statistics:</u></i></p> <p>The categorical data for teacher responses was coded by assigning numeric codes to questionnaire items 24-26. A codebook was created with a frequency table. Mean mean scores were calculated to describe teacher propensity to leave the school, the school district, and the teaching profession. Cross tabulations were performed with respect to teacher demographic variables.</p> |
| <p><b><u>Research Question 5 (RQ5):</u></b><br/> <i>With respect to teacher demographic factors, do each of the following three factors - motivator factors, hygiene factors, and rural Alaska job factors - predict teacher reported overall job satisfaction/dissatisfaction in the Bering Strait School District?</i></p> <p><b><u>Sub-Questions:</u></b></p> <p><b><u>RQ5-SQ1:</u></b> <i>Do motivator factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.</i></p> <p style="text-align: right;"><i>RQ 5 continues</i></p> | <p><u>teacher demographic items:</u> Q27, Q28, Q29, Q30, Q31</p> <p><u>motivation factor items:</u> Q1, Q3, Q5, Q12, Q13, Q18</p> <p><u>hygiene factor items:</u> Q2, Q4, Q6, Q7, Q8, Q9, Q10, Q11, Q14, Q15, Q16, Q17</p> <p><u>rural Alaska job factor items:</u> Q19, Q20, Q21</p> <p><u>propensity to leave the school item:</u> Q24</p> <p><u>propensity to leave the school district item:</u> Q25</p> | <p><i><u>Sequential multiple regression:</u></i></p> <p>Teacher demographic factors, motivator factors, hygiene factors, and rural Alaska job factors were used to predict teacher reported overall job satisfaction.</p> <p>Due to the number of variables, three separate sequential multiple regression analyses were utilized to answer the three sub-questions of RQ5.</p>   |

Table 1 continues



| Research Questions  | Questionnaire Items  | Method   |
|---|--|--|
| <p><b><u>RQ5-SQ2:</u></b> <i>Do hygiene factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.</i></p> <p><b><u>RQ5-SQ3:</u></b> <i>Do rural Alaska job factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.</i></p>  | <p><u>propensity to leave the teaching profession item:</u> Q26</p> <p><u>teacher overall job satisfaction:</u> Q22</p>  |  |
| <p><b><u>Research Question 6 (RQ6):</u></b><br/><i>With respect to teacher demographic factors, how do each of the following four factors - motivator factors, hygiene factors, rural Alaska job factors, and teacher reported overall job satisfaction/dissatisfaction - predict teacher reported propensity to leave with respect to each of three leaving outcomes: leaving the school, leaving the school district, and leaving the teaching profession?</i></p> <p><b><u>Sub-Questions:</u></b></p> <p><b><u>RQ6-SQ1:</u></b> <i>Do motivator factors predict teacher reported propensity to leave the school?</i></p> <p><b><u>RQ6-SQ2:</u></b> <i>Do hygiene factors predict teacher reported propensity to leave the school?</i></p> <p><b><u>RQ6-SQ3:</u></b> <i>Do rural Alaska job factors predict teacher reported propensity to leave the school?</i></p> <p><b><u>RQ6-SQ4:</u></b> <i>Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the school?</i></p> <p style="text-align: right;"><i>RQ 6 continues</i></p> | <p><u>teacher demographic items:</u> Q27, Q28, Q29, Q30, Q31</p> <p><u>motivation factor items:</u> Q1, Q3, Q5, Q12, Q13, Q18</p> <p><u>hygiene factor items:</u> Q2, Q4, Q6, Q7, Q8, Q9, Q10, Q11, Q14, Q15, Q16, Q17</p> <p><u>rural Alaska job factor items:</u> Q19, Q20, Q21</p> <p><u>teacher overall job satisfaction:</u> Q22</p> <p><u>propensity to leave the school item:</u> Q24</p> <p><u>propensity to leave the school district item:</u> Q25</p> <p><u>propensity to leave the teaching profession item:</u> Q26</p> | <p>Teacher demographic factors, motivator factors, hygiene factors, rural Alaska job factors, and teacher reported overall job satisfaction were used to predict teacher propensity to leave the school, the school district, and the teaching profession.</p> <p>Due to the number of variables, twelve separate sequential multiple regression analyses were utilized to answer the twelve sub-questions of RQ6.</p> |

Table 1 continues

| Research Questions   | Questionnaire Items | Method |
|--|---------------------|--------|
| <p><b><u>RQ6-SQ5</u></b>: <i>Do motivator factors predict teacher reported propensity to leave the school district?</i></p> <p><b><u>RQ6-SQ6</u></b>: <i>Do hygiene factors predict teacher reported propensity to leave the school district?</i></p> <p><b><u>RQ6-SQ7</u></b>: <i>Do rural Alaska job factors predict teacher reported propensity to leave the school district?</i></p> <p><b><u>RQ6-SQ8</u></b>: <i>Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the school district?</i></p> <p><b><u>RQ6-SQ9</u></b>: <i>Do motivator factors predict teacher reported propensity to leave the teaching profession?</i></p> <p><b><u>RQ6-SQ10</u></b>: <i>Do hygiene factors predict teacher reported propensity to leave the teaching profession?</i></p> <p><b><u>RQ6-SQ11</u></b>: <i>Do rural Alaska job factors predict teacher reported propensity to leave the teaching profession?</i></p> <p><b><u>RQ6-SQ12</u></b>: <i>Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the teaching profession?</i></p> |                     |        |

**Statistical Data Analysis Procedures.** The following statistical methods were utilized to address the research questions of the study:

*Descriptive statistics* - were used to analyze data through the calculation of the

mean (Creswell, 2009). Descriptive statistics were used to address

research questions 1, 2, 3, and 4. For research question 1, descriptive statistics were used in the description of teacher satisfaction/dissatisfaction levels for motivator factors, hygiene factors, and rural Alaska job factors. For research question 2, descriptive statistics were used to determine whether teacher satisfaction/dissatisfaction levels for motivator factors and hygiene factors were consistent with a dual factor job satisfaction/dissatisfaction model as postulated by Herzberg. For research question 3, descriptive statistics were used in the description of teacher-indicated overall job satisfaction/dissatisfaction. For research question 4, descriptive statistics were used to describe teacher-indicated propensity to leave the school, school district, and teaching profession.

Repeated measures analysis of variance (ANOVA) - compare the means across variables that are based on repeated observations (Creswell, 2009).

Repeated measures ANOVA was used in research question 1 (RQ1-SQ2), to compare the teacher reported job satisfaction/dissatisfaction mean scores of the categories of motivator factors, hygiene factors, and rural Alaska job factors to determine if they significantly differed from each other.

Sequential multiple regression analysis - was used to determine the correlation between the dependent and independent variables in research questions 5 and 6. Multiple regression analysis is used in studies that aim to use statistics to realize the relationship between a dependent variable and two or more independent variables. This method was appropriate for the

context of this study because two or more independent variables were tested against one dependent variable. Multiple regression allows for an analysis of whether the independent variables listed in research questions can predict the relationship with the dependent variable listed in research questions (Creswell, 2009).

Table 2 lists how the statistical data analysis procedures discussed above were utilized to address each research question.

Table 2

*Statistical Data Analysis Procedures Utilized to Address Each Research Question*

| Research Question   | Analysis Procedure   |
|---|--|
| <p><b>Research Question 1 (RQ1):</b> <i>How do teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors, hygiene factors, and rural Alaska job factors? Do the satisfaction/dissatisfaction ratings according to these categories significantly differ?</i></p> |  |
| <p><b>Sub-Questions:</b></p> <p><b>RQ1-SQ1:</b> <i>How do teachers in the Bering Strait School District rate their satisfaction or dissatisfaction with respect to motivator factors, hygiene factors, and rural Alaska job factors?</i></p>  |  |
| <p><b>RQ1-SQ2:</b> <i>Do the categories of motivator factors, hygiene factors, and rural Alaska job factors significantly differ in levels of teacher reported satisfaction/dissatisfaction?</i></p> <p style="text-align: right;">RQ1-SQ2 continues</p>  | <p><b>RQ1-SQ1 - Descriptive Statistics:</b><br/>The categorical data for teacher responses was coded by assigning numeric codes to questionnaire items 1-18 (Herzberg motivation-hygiene factors) and 19-21 (rural Alaska job factors). A codebook was then created with a frequency table. 21 mean scores were calculated to describe teacher levels of satisfaction/dissatisfaction for each of the motivator factors, hygiene factors, and rural Alaska job factors. Category mean scores for motivator factors, hygiene factors, and rural Alaska job factors were calculated.</p> |

Table 2 continues

| Research Question   | Analysis Procedure  |
|---|---|
| RQ1-SQ2 continues   | <i><u>RQ1-SQ2 - Repeated Measures ANOVA:</u></i> A repeated measures ANOVA test was used to determine if the categories of motivator factors, hygiene factors, and rural Alaska job factors significantly differed.   |
| <b>Research Question 2 (RQ2):</b> <i>Is a dual factor model of job satisfaction (as Herzberg theorized) supported by how teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors and hygiene factors?</i>                                | <i><u>Descriptive Statistics:</u></i><br>The 18 mean scores that were calculated to describe teacher levels of satisfaction/dissatisfaction for each motivator factor and hygiene factor, and the category mean scores that were calculated for motivator factors and hygiene factors were used to determine if motivator factors principally contribute to satisfaction and hygiene factors principally contribute to dissatisfaction (as Herzberg theorized). |
| <b>Research Question 3 (RQ3):</b> <i>How do teachers in the Bering Strait School District rate their overall satisfaction/dissatisfaction with their teaching position?</i>   | <i><u>Descriptive statistics:</u></i><br>The categorical data for teacher responses was coded by assigning numeric codes to questionnaire item 22. A codebook was then created with a frequency table. Cross tabulations were performed with respect to teacher demographic variables. Through this analysis, the teacher indicated overall satisfaction/dissatisfaction level was determined.  |
| <b>Research Question 4 (RQ4):</b> <i>How do teachers in the Bering Strait School District rate their propensity to leave the school, the school district, and the teaching profession?</i>  | <i><u>Descriptive Statistics:</u></i><br>The categorical data for teacher responses was coded by assigning numeric codes to questionnaire items 24-26. A codebook was then created with a frequency table. Cross tabulations were performed with respect to teacher demographic variables. Through this analysis, teacher propensity to leave the school, the school district, and the teaching profession were determined.                                     |
| <b>Research Question 5 (RQ5):</b> <i>With respect to teacher demographic factors, do each of the following three factors - motivator factors, hygiene factors, and rural Alaska job factors - predict teacher reported overall job satisfaction/dissatisfaction in the Bering Strait School District?</i> |   |
| <b>Sub-Questions:</b><br><b>RQ5-SQ1:</b> <i>Do motivator factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.</i>   |   |

Table 2 continues

| Research Question   | Analysis Procedure  |
|---|---|
| <b>RQ5-SQ2:</b> Do hygiene factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.   |   |
| <b>RQ5-SQ3:</b> Do rural Alaska job factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.  | <u>Sequential Multiple Regression:</u><br>Teacher demographic factors (questionnaire items 27-31), motivator factors (questionnaire items: 1, 3, 5, 12, 13, 18), hygiene factors (questionnaire items: 2, 4, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17), and rural Alaska job factors (questionnaire items 19-21) were used to predict teacher reported overall job satisfaction (questionnaire item 22). Due to the number of variables, three separate sequential multiple regression analyses were utilized to answer the three sub-questions of RQ5:         |
| <b>RQ5-SQ1:</b> Do motivator factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.   | <i>sequential multiple regression 1 (RQ5-R1)</i><br>Teacher overall job satisfaction represented the dependent variable. Teacher demographic variables represented the first sequential independent variables used in model one, and motivator factors represented the variables added in model two.  |
| <b>RQ5-SQ2:</b> Do hygiene factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.   | <i>sequential multiple regression 2 (RQ5-R2)</i><br>Teacher overall job satisfaction represented the dependent variable. Teacher demographic variables represented the first sequential independent variables used in model one, and hygiene factors representing the variables added in model two.   |
| <b>RQ5-SQ3:</b> Do rural Alaska job factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.  | <i>sequential multiple regression 3 (RQ5-R3)</i><br>Teacher overall job satisfaction represented the dependent variable. Teacher demographic variables represented the first sequential independent variables used in model one, and rural Alaska job factors represented the variables added in model two.   |
| <b>Research Question 6 (RQ6):</b> With respect to teacher demographic factors, do each of the following four factors: motivator factors, hygiene factors, rural Alaska job factors, and teacher reported overall job satisfaction/dissatisfaction - predict teacher reported propensity to leave with respect to each of three leaving outcomes: leaving the school, leaving the school district, and leaving the teaching profession?<br><br>RQ6 continues | <u>Sequential Multiple Regression:</u><br>Teacher demographic factors (questionnaire items 27-32), motivator factors (questionnaire items: 1, 3, 5, 12, 13, 18), hygiene factors (questionnaire items: 2, 4, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17), rural Alaska job factors (questionnaire items 19-21), overall job satisfaction/dissatisfaction (questionnaire item 22) were used to predict teacher reported propensity to leave the school (questionnaire item 24), the school district (questionnaire item 25), and the teaching<br><br>RQ6 continues |

Table 2 continues

| Research Question   | Analysis Procedure   |
|---|--|
| RQ6 Continued   | profession (questionnaire item 26). Due to the number of variables, twelve separate sequential multiple regression analyses were utilized to answer the twelve sub-questions of RQ6:   |
| <p><b><u>Sub-Questions:</u></b></p> <p><b>RQ6-SQ1:</b> <i>Do motivator factors predict teacher reported propensity to leave the school?</i></p>       | <p><i>sequential multiple regression 1 (RQ6-R1)</i></p> <p>Teacher propensity to leave the school represented the dependent variable. Teacher demographic variables represented the first sequential independent variables used in model one, and motivator factors represented the variables added in model two.</p>                    |
| <p><b>RQ6-SQ2:</b> <i>Do hygiene factors predict teacher reported propensity to leave the school?</i></p>   | <p><i>sequential multiple regression 2 (RQ6-R2)</i></p> <p>Teacher propensity to leave the school represented the dependent variable. Teacher demographic variables represented the first sequential independent variables used in model one, and hygiene factors represented the variables added in model two.</p>                      |
| <p><b>RQ6-SQ3:</b> <i>Do rural Alaska job factors predict teacher reported propensity to leave the school?</i></p>                                    | <p><i>sequential multiple regression 3 (RQ6-R3)</i></p> <p>Teacher propensity to leave the school represented the dependent variable. Teacher demographic variables represented the first sequential independent variables used in model one, and rural Alaska job factors represented the variables added in model two.</p>             |
| <p><b>RQ6-SQ4:</b> <i>Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the school?</i></p> | <p><i>sequential multiple regression 4 (RQ6-R4)</i></p> <p>Teacher propensity to leave the school will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and overall job satisfaction representing the variable added in model two.</p>    |
| <p><b>RQ6-SQ5:</b> <i>Do motivator factors predict teacher reported propensity to leave the school district?</i></p>                                  | <p><i>sequential multiple regression 5 (RQ6-R5)</i></p> <p>Teacher propensity to leave the school district will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and motivator factors representing the variables added in model two.</p> |

Table 2 continues

| Research Question   | Analysis Procedure   |
|---|--|
| <b>RQ6-SQ6:</b> <i>Do hygiene factors predict teacher reported propensity to leave the school district?</i>   | <i>sequential multiple regression 6 (RQ6-R6)</i><br>Teacher propensity to leave their school district will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and hygiene factors representing the variables added in model two.                          |
| <b>RQ6-SQ7:</b> <i>Do rural Alaska job factors predict teacher reported propensity to leave the school district?</i>                                    | <i>sequential multiple regression 7 (RQ6-R7)</i><br>Teacher propensity to leave the school district will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and rural Alaska job factors representing the variables added in model two.                   |
| <b>RQ6-SQ8:</b> <i>Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the school district?</i> | <i>sequential multiple regression 8 (RQ6-R8)</i><br>Teacher propensity to leave the school district will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and overall job satisfaction representing the variable added in model two.                    |
| <b>RQ6-SQ9:</b> <i>Do motivator factors predict teacher reported propensity to leave the teaching profession?</i>                                       | <i>sequential multiple regression 9 (RQ6-R9)</i><br>Teacher propensity to leave the teaching profession will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and motivator factors representing the variables added in model two.                      |
| <b>RQ6-SQ10:</b> <i>Do hygiene factors predict teacher reported propensity to leave the teaching profession?</i>  | <i>sequential multiple regression 10 (RQ6-R10)</i><br>Teacher propensity to leave the teaching profession will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and hygiene factors representing the variables added in model two.                      |
| <b>RQ6-SQ11:</b> <i>Do rural Alaska job factors predict teacher reported propensity to leave the teaching profession?</i>                               | <i>sequential multiple regression 11 (RQ6-R11)</i><br>Teacher propensity to leave the teaching profession will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and rural Alaska job factors representing the independent variables added in model two. |

Table 2 continues



| Research Question   | Analysis Procedure   |
|---|--|
| <p><b>RQ6-SQ12:</b> <i>Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the teaching profession?</i></p> | <p><i>sequential multiple regression 12 (RQ6-R12)</i><br/> Teacher propensity to leave the teaching profession will represent the dependent variable, with teacher demographic variables representing the first sequential independent variables used in model one, and overall job satisfaction representing the independent variable added in model two.</p> |

## Summary

A quantitative method will be used in this study to examine the relationship between teacher job satisfaction and dissatisfaction and teacher indicated propensity to leave their schools, the school district, and the teaching profession. By sending out the questionnaire survey to all of the teachers employed in the Bering Strait School District (224 teachers, in 15 schools, in 15 villages) it is hoped that a better understanding of the factors that serve to satisfy and dissatisfy teachers, and the relationship between these factors and teacher indicated propensity to leave. Statistical procedures commonly used in the social sciences will be used to analyze the data that is collected. The data that is collected and the results that ensue can be used by educational practitioners to help develop policies and practices aimed at increasing teacher job satisfaction, decreasing teacher propensity to leave, increasing rates of teacher retention, and decreasing teacher turnover. The data that is collected and the ensuing results will also contribute to the body of research on teacher job satisfaction and propensity to leave and may serve to inform further research.

## **Chapter IV**

### **Results of the Research Questions**

#### **Organization of Chapter IV**

This chapter will provide informational headings on: Chapter Overview, Response from the Survey Questionnaire, Demographics of the Participants, Results of the Research Questions, and Chapter Summary.

#### **Chapter Overview**

This quantitative research study focused on the job satisfaction and the propensity to leave of PK-12 public school teachers in the Bering Strait School District in rural Alaska. Motivation-hygiene factors (Herzberg et al., 1959) were used to predict teacher reported overall job satisfaction, and teacher reported propensity to leave their school, school district, and the teaching profession. Data was collected through use of an online survey questionnaire. The purpose of this chapter is to present the results of the data analysis with respect to each of the research questions of the study.

#### **Response from the Survey Questionnaire**

An email invitation to take the survey was sent to the 224 PK-12 teachers who worked in the Bering Strait School District during the 2019-2020 school year. Out of the 224 potential respondents, 170 completed the survey, resulting in a 75.9% response rate. The data was collected via the online survey platform SurveyMonkey and then subsequently exported to a file for data analysis on SPSS (Statistical Package for the Social Sciences, IBM) and Mplus (Muthén and Muthén). Descriptive statistics and analysis of variance were used to answer research questions 1, 2, and 3; and multiple regression was used to answer research questions 4 and 5.

## **Demographics of the Study Participants**

The demographics of the 170 BSSD teachers participating in study are as follows:

Gender - of the respondents 35.3% were male, 63.5% were female, and 2.2% did not indicate a gender.

Age - 5.9% of the participants reported that they were 22-25 years old, 11.2% were 26-29 years old, 17.1% were 30-34 years old, 8.2% were 35-39 years old, 16.5% were 40-49 years old, 23.5% were 50-59 years old, and 16.5% were 60+ years old. 1.1% did not identify their age.

Highest Educational Level Attained - 41.2% of participants reported that bachelor's degree was their highest degree attained, while 54.1% of respondents reported having a master's degree or higher. 4.7% did not report their highest level of education.

Experience in the School District - 20% of participants reported that they had been employed in the school district for 1 year, 15.9% for 2 years, 9.4% for 3 years, 5.9% for 4 years, 11.2% for 5 years, 18.8% for 6-9 years, and 17.1% for 10+ years. 1.7% of respondents did not indicate their number of years experience in the school district.

Significant Other Status - 47.1% of participants reported that they had a significant other (boyfriend, girlfriend, husband, wife, partner) living in their village. 50% of respondents did not have a significant other living in their village. 2.9% did not report their significant other status.

Grade Level Taught - 49.4% of participants reported that they taught at the PK-6 grade level, 31.8% indicated that they taught at the secondary grade level, and 17.1% reported that they taught both elementary and secondary students. 1.7% of participants did not indicate which grade level they taught.

## Results of the Research Questions

**Research Question 1 (RQ1).** How do teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors, hygiene factors, and rural Alaska job factors? Do the satisfaction/dissatisfaction ratings according to these groups significantly differ?

**RQ1-Subquestion 1 (RQ1-SQ1).** How do teachers in the Bering Strait School District rate their satisfaction or dissatisfaction with respect to motivator factors, hygiene factors, and rural Alaska job factors?

To answer RQ1-SQ1, a codebook was created with a frequency table. In the codebook, values from 1.0 - 6.0 were assigned to the six possible responses on the Likert scale. The values assigned to possible responses were as follows: 1.0 = very dissatisfied; 2.0 = moderately dissatisfied; 3.0 = slightly dissatisfied; 4.0 = slightly satisfied; 5.0 = moderately satisfied; 6.0 = very satisfied. The satisfaction/dissatisfaction level for each job motivator factor, hygiene factors, and rural Alaska job factor was calculated and ranked in a frequency table according to the mean scores. Table 3 (RQ1-D1) presents the mean scores and standard deviation for each motivator factor, hygiene factor, and rural Alaska job variable (ranked in descending order of satisfaction).

Overall, teachers were more satisfied than dissatisfied with each type of job satisfaction factor variable grouping (motivator, hygiene, rural Alaska). The three job satisfaction factor groups placed in the slightly satisfied (= 4.0) to moderately satisfied (= 5.0) range. Teachers reported a category mean score of 5.118 for motivator factors. Teachers reported a category mean score of 4.993 for hygiene factors. Teachers reported a mean score of 4.530 for rural Alaska job factors.

Table 3

*RQ1-D1: Descriptive Statistics for Motivation-Hygiene and Rural Alaska Job**Satisfaction Variables*

| <b>RQ1-D1: Descriptive Statistics for Motivation-Hygiene and Rural Alaska Job Satisfaction Variables</b> |       |       |     |     |     |
|--|-------|-------|-----|-----|-----|
| <u>Job Satisfaction Factor Group</u>   | Mean  | SD    | N   |     |     |
| Motivator  | 5.118 | 0.796 | 170 |     |     |
| Hygiene  | 4.993 | 0.703 | 170 |     |     |
| Rural Alaska   | 4.530 | 1.087 | 170 |     |     |
| <u>Job Satisfaction Variables (Descending By Mean Score)</u>   | Mean  | SD    | Min | Max | N   |
| Job Security (Hyg.-Q10)  | 5.601 | 0.834 | 1   | 6   | 168 |
| The Work Itself (Mot.-Q18)   | 5.506 | 0.837 | 2   | 6   | 170 |
| Salary (Hyg.-Q14)  | 5.473 | 0.824 | 1   | 6   | 169 |
| Interpersonal Relations with Students (Hyg.-Q8)  | 5.371 | 0.881 | 2   | 6   | 167 |
| Achievement (Mot.-Q1)  | 5.234 | 0.888 | 2   | 6   | 169 |
| Benefits (Hyg.-Q4)   | 5.213 | 1.053 | 1   | 6   | 169 |
| Responsibility (Mot.-Q13)  | 5.153 | 1.125 | 1   | 6   | 170 |
| Growth (Mot.-Q5)   | 5.129 | 1.047 | 1   | 6   | 170 |
| Status (Hyg.-Q16)  | 5.071 | 1.061 | 2   | 6   | 169 |
| Advancement (Mot.-Q3)  | 5.029 | 1.029 | 1   | 6   | 170 |
| Interpersonal Relations with Supervisors (Hyg.-Q9)   | 4.917 | 1.395 | 1   | 6   | 168 |
| Working Conditions (Hyg.-Q17)  | 4.846 | 1.205 | 1   | 6   | 169 |
| Interpersonal Relations with Colleagues (Hyg.-Q6)  | 4.845 | 1.168 | 1   | 6   | 168 |
| Interpersonal Relations with Parents/Guardians (Hyg.-Q7)   | 4.837 | 1.069 | 1   | 6   | 166 |
| Village Connectedness (AK-Q21)   | 4.799 | 1.218 | 1   | 6   | 169 |
| School Level Administration and Supervision (Hyg.-Q15)   | 4.765 | 1.469 | 1   | 6   | 170 |
| District Level Administrative Policies and Practices (Hyg.-Q2)   | 4.671 | 1.220 | 1   | 6   | 170 |
| Recognition (Mot.-Q12)   | 4.649 | 1.376 | 1   | 6   | 168 |
| Teacher Housing (AK-Q19)   | 4.488 | 1.556 | 1   | 6   | 166 |
| Village Amenities (AK-Q20)   | 4.345 | 1.340 | 1   | 6   | 168 |
| Job Impact of Personal Life (Hyg.-Q11)   | 4.325 | 1.421 | 1   | 6   | 169 |

1.0 = Very Dissatisfied; 2.0 = Moderately Dissatisfied; 3.0 = Slightly Dissatisfied; 4.0 = Slightly Satisfied; 5.0 = Moderately Satisfied; 6.0 = Very Satisfied

Overall, teachers reported that they were more satisfied than dissatisfied with each of the individual job satisfaction variables. The lowest mean score for a job satisfaction variable was 4.325 placing it above slightly satisfied (= 4.0), but below moderately satisfied (= 5.0). Of the 21 job satisfaction variables, teachers reported being at least moderately satisfied (= 5.0) with 10 of the job satisfaction variables. Teachers were most satisfied with job security (5.601), the work itself (5.506), salary (5.473), interpersonal relations with students (5.371), and achievement (5.234). Teachers were least satisfied

with job impact on personal life (4.325), village amenities (4.345), teacher housing (4.48), district level administrative policies and practices (4.671), and school level administration and supervision (4.765); these mean scores demonstrate that, overall, teachers were more than slightly satisfied with these factors, but less than moderately satisfied (slightly satisfied = 4.0; moderately satisfied = 5.0).

***RQ1-Subquestion 2 (RQ1-SQ2).*** Do the categories of motivator factors, hygiene factors, and rural Alaska job factors significantly differ in levels of teacher reported satisfaction/dissatisfaction?

To answer RQ1-SQ2, a repeated measures ANOVA was used to determine if the category groups of motivator factors, hygiene factors, and rural Alaska job factors significantly differed from each other. The results of the repeated measures ANOVA determined that the mean scores of all three job factor category groups significantly differ from each other. Teachers reported that they were more satisfied by motivator factors (5.118 mean score), than hygiene factors (4.993 mean score), or rural Alaska job factors (4.530) (see Table 4 (RQ1-A2)).

**Research Question 2 (RQ2).** Is a dual factor model of job satisfaction (as Herzberg theorized) supported by how teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors and hygiene factors?

To answer RQ2, a codebook was created with a frequency table. In the codebook, values from 1.0 - 6.0 were assigned to the six possible responses on the Likert scale. The values assigned to possible responses were as follows: 1.0 = very dissatisfied; 2.0 = moderately dissatisfied; 3.0 = slightly dissatisfied; 4.0 = slightly satisfied; 5.0 = moderately satisfied; 6.0 = very satisfied. The satisfaction/dissatisfaction level for

Table 4

*RQ1-A2: Repeated Measures ANOVA for Motivator, Hygiene, and Rural Alaska Job Satisfaction Variables*

| RQ1-A2: Repeated Measures ANOVA for Motivator, Hygiene, and Rural Alaska Job Satisfaction Variables |              |       |                  |       |        |                      |                      |
|---|--------------|-------|------------------|-------|--------|----------------------|----------------------|
| Job Satisfaction Factor Group   | Mean         | SD    | N                | SE    | t      | Lower Bound (95% CI) | Upper Bound (95% CI) |
| Motivator   | 5.118        | 0.796 | 170              | 0.061 | 83.784 | 4.998                | 5.239                |
| Hygiene   | 4.993        | 0.703 | 170              | 0.054 | 92.563 | 4.887                | 5.100                |
| Rural Alaska  | 4.530        | 1.087 | 170              | 0.083 | 54.346 | 4.366                | 4.695                |
|   |              |       |                  |       |        |                      |                      |
|   |              |       | Mean Difference* | SE    | p      |                      |                      |
| Motivator   | Hygiene      |       | 0.125            | 0.036 | 0.002* |                      |                      |
|   | Rural Alaska |       | 0.588            | 0.075 | 0.000* |                      |                      |
| Hygiene   | Motivator    |       | -0.125           | 0.036 | 0.002* |                      |                      |
|   | Rural Alaska |       | 0.463            | 0.067 | 0.000* |                      |                      |
| Rural Alaska  | Motivator    |       | -0.588           | 0.075 | 0.000* |                      |                      |
|   | Hygiene      |       | -0.463           | 0.067 | 0.000* |                      |                      |
|   |              |       |                  |       |        |                      |                      |
| * the mean difference is significant at the .05 level   |              |       |                  |       |        |                      |                      |

each motivator factor and hygiene factor was calculated and ranked in a frequency table according to the mean scores. Table 5 (RQ2-D1) below presents the mean scores and standard deviation for each motivator factor and hygiene factor (in descending order).

While teachers reported that they were more satisfied by motivator factors (5.118 mean score), than hygiene factors (4.993 mean score), through an examination of the mean scores, a bifurcated or dual factor model as Herzberg postulated is not supported by the data that was collected. Herzberg theorized that hygiene factors could lead to worker dissatisfaction, but would generally not satisfy workers, while motivator factors have the potential to satisfy workers if hygiene factors are maintained. According to the mean scores of the data that was collected, hygiene factors were a source of satisfaction for teachers, with all hygiene factors receiving a mean score of greater than

Table 5

*RQ2-D1: Descriptive Statistics for Motivation-Hygiene Job Satisfaction Variables*

| RQ2-D1: Descriptive Statistics for Motivation-Hygiene Job Satisfaction Variables |       |       |     |     |     |  |
|--|-------|-------|-----|-----|-----|--|
| <u>Job Satisfaction Factor Group</u>   | Mean  | SD    | N   |     |     |  |
| Motivator  | 5.118 | 0.796 | 170 |     |     |  |
| Hygiene  | 4.993 | 0.703 | 170 |     |     |  |
| <u>Job Satisfaction Variables (Descending By Mean Score)</u>                     | Mean  | SD    | Min | Max | N   |  |
| Job Security (Hyg.-Q10)  | 5.601 | 0.834 | 1   | 6   | 168 |  |
| The Work Itself (Mot.-Q18)   | 5.506 | 0.837 | 2   | 6   | 170 |  |
| Salary (Hyg.-Q14)  | 5.473 | 0.824 | 1   | 6   | 169 |  |
| Interpersonal Relations with Students (Hyg.-Q8)                                  | 5.371 | 0.881 | 2   | 6   | 167 |  |
| Achievement (Mot.-Q1)  | 5.234 | 0.888 | 2   | 6   | 169 |  |
| Benefits (Hyg.-Q4)   | 5.213 | 1.053 | 1   | 6   | 169 |  |
| Responsibility (Mot.-Q13)  | 5.153 | 1.125 | 1   | 6   | 170 |  |
| Growth (Mot.-Q5)   | 5.129 | 1.047 | 1   | 6   | 170 |  |
| Status (Hyg.-Q16)  | 5.071 | 1.061 | 2   | 6   | 169 |  |
| Advancement (Mot.-Q3)  | 5.029 | 1.029 | 1   | 6   | 170 |  |
| Interpersonal Relations with Supervisors (Hyg.-Q9)                               | 4.917 | 1.395 | 1   | 6   | 168 |  |
| Working Conditions (Hyg.-Q17)  | 4.846 | 1.205 | 1   | 6   | 169 |  |
| Interpersonal Relations with Colleagues (Hyg.-Q6)                                | 4.845 | 1.168 | 1   | 6   | 168 |  |
| Interpersonal Relations with Parents/Guardians (Hyg.-Q7)                         | 4.837 | 1.069 | 1   | 6   | 166 |  |
| School Level Administration and Supervision (Hyg.-Q15)                           | 4.765 | 1.469 | 1   | 6   | 170 |  |
| District Level Administrative Policies and Practices (Hyg.-Q2)                   | 4.671 | 1.220 | 1   | 6   | 170 |  |
| Recognition (Mot.-Q12)   | 4.649 | 1.376 | 1   | 6   | 168 |  |
| Job Impact of Personal Life (Hyg.-Q11)   | 4.325 | 1.421 | 1   | 6   | 169 |  |

1.0 = Very Dissatisfied; 2.0 = Moderately Dissatisfied; 3.0 = Slightly Dissatisfied; 4.0 = Slightly Satisfied; 5.0 = Moderately Satisfied; 6.0 = Very Satisfied

4.0 (slightly satisfied). Of the mean scores, the highest mean score ( $\bar{x} = 5.601$ ) was attributed to job security, which is a hygiene factor. Three of the four highest mean scores for job satisfaction variables (job security, salary, interpersonal relations with students) were attributed hygiene factors, and five of the ten highest mean scores for job satisfaction variables were attributed to hygiene factors, all of which had mean scores above 5.0 (moderately satisfied).

**Research Question 3 (RQ3).** How do teachers in the Bering Strait School District rate their overall satisfaction or dissatisfaction with their teaching position?

To answer RQ3, a codebook was created with a frequency table. In the codebook, values from 1.0 - 6.0 were assigned to the six possible responses on the Likert scale. The



values assigned to possible responses were as follows: 1.0 = very dissatisfied; 2.0 = moderately dissatisfied; 3.0 = slightly dissatisfied; 4.0 = slightly satisfied; 5.0 = moderately satisfied; 6.0 = very satisfied. The satisfaction level for overall job satisfaction was calculated and placed on Table 6 (RQ3-D1).

Table 6

*RQ3-D1: Descriptive Statistics for Level of Overall Job Satisfaction*

| RQ3-D1: Descriptive Statistics for Level of Overall Job Satisfaction |       |       |     |     |     |  |
|--|-------|-------|-----|-----|-----|--|
|  | Mean  | SD    | Min | Max | N   |  |
| Overall Level of Job Satisfaction (Q22)                              | 5.180 | 1.026 | 1   | 6   | 167 |  |

1.0 = Very Dissatisfied; 2.0 = Moderately Dissatisfied; 3.0 = Slightly Dissatisfied; 4.0 = Slightly Satisfied; 5.0 = Moderately Satisfied; 6.0 = Very Satisfied

As a group, teachers reported a mean score of 5.180 for their overall level of job satisfaction, meaning that they were more than moderately satisfied (= 5.0), but less than very satisfied (= 6.0) with their job overall.

***Gender Cross Tabulations for Teacher Overall Job Satisfaction.*** Cross tabulations for teacher reported overall job satisfaction with respect to gender were calculated. Female teachers reported a mean score of 5.29, while male teachers reported a mean score of 4.966 (see Table 7 (RQ3-D2)).

***Age Cross Tabulations for Teacher Overall Job Satisfaction.*** Cross tabulations for teacher overall job satisfaction with respect to age were calculated. The highest mean scores were reported in the age 50-59 group ( $\bar{x} = 5.513$ ) and the 60+ age group ( $\bar{x} = 5.536$ ). The lowest mean scores were reported in the age 35-39 group ( $\bar{x} = 4.769$ ) and the 40-49 age group ( $\bar{x} = 4.821$ ) (see Table 8 (RQ3-D3)).

Table 7

*RQ3-D2: Descriptive Statistics for Teacher Overall Job Satisfaction (Gender)*

| <b>RQ3-D2: Descriptive Statistics for Teacher Overall Job Satisfaction (Gender)</b> |                         |                     |                    |               |
|---|-------------------------|---------------------|--------------------|---------------|
|   |                         | Female (%) [X]      | Male (%) [X]       | Total (%) [X] |
| [1]   | Very Dissatisfied       | 1 (0.9%)            | 1 (1.7%)           | 2 (1.2%)      |
| [2]   | Moderately Dissatisfied | 1 (0.9%)            | 4 (6.9%)           | 5 (3.0%)      |
| [3]   | Slightly Dissatisfied   | 1 (0.9%)            | 1 (1.7%)           | 2 (1.2%)      |
| [4]   | Slightly Satisfied      | 13 (12.1%)          | 6 (6.9%)           | 19 (11.5%)    |
| [5]   | Moderately Satisfied    | 38 (35.5%)          | 24 (41.4%)         | 62 (37.6%)    |
| [6]   | Very Satisfied          | 53 (49.5%)          | 22 (37.9%)         | 75 (45.5%)    |
| Total   |                         | 107 (64.8%) [5.290] | 58 (35.2%) (4.966) | 165 [5.176]   |

Table 8

*RQ3-D3: Descriptive Statistics for Teacher Overall Job Satisfaction (Age)*

| <b>RQ3-D3: Descriptive Statistics for Teacher Overall Job Satisfaction (Age)</b> |                         |                   |                    |                    |                   |                    |                    |                    |             |
|--|-------------------------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------|
|  | Age 22-25 (%) [X]       | Age 26-29 (%) [X] | Age 30-34 (%) [X]  | Age 35-39 (%) [X]  | Age 40-49 (%) [X] | Age 50-59 (%) [X]  | Age 60+ (%) [X]    | Total (%) [X]      |             |
| [1]  | Very Dissatisfied       | 0 (0%)            | 1 (5.3%)           | 1 (3.4%)           | 0 (0%)            | 0 (0%)             | 0 (0%)             | 2 (1.2%)           |             |
| [2]  | Moderately Dissatisfied | 0 (0%)            | 0 (0%)             | 0 (0%)             | 2 (15.4%)         | 2 (7.1%)           | 0 (0%)             | 5 (3.0%)           |             |
| [3]  | Slightly Dissatisfied   | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)            | 1 (3.6%)           | 1 (2.6%)           | 2 (1.2%)           |             |
| [4]  | Slightly Satisfied      | 1 (11.1%)         | 3 (15.8%)          | 6 (20.7%)          | 1 (7.7%)          | 4 (14.3%)          | 1 (3.6%)           | 18 (10.9%)         |             |
| [5]  | Moderately Satisfied    | 4 (44.4%)         | 8 (42.1%)          | 12 (41.4%)         | 6 (46.2%)         | 14 (50.0%)         | 12 (30.8%)         | 63 (38.2%)         |             |
| [6]  | Very Satisfied          | 4 (44.4%)         | 7 (36.8%)          | 10 (34.4%)         | 4 (30.8%)         | 7 (25.0%)          | 24 (61.5%)         | 75 (45.5%)         |             |
| Total  |                         | 9 (5.5%) [5.333]  | 19 (11.5%) [5.000] | 29 (17.6%) [5.000] | 13 (7.9%) [4.769] | 28 (17.0%) [4.821] | 39 (23.6%) [5.513] | 28 (17.0%) [5.536] | 165 [5.182] |

***Educational Level Attained Cross Tabulations for Teacher Overall Job***

***Satisfaction.*** Cross tabulations for teacher overall job satisfaction with respect to educational level attained were calculated. Teachers whose highest level of education attained was a bachelor's degree reported a mean score of 5.103. Teachers that attained a master's degree or above reported a mean score of 5.231 (see Table 9 (RQ3-D4)).

Table 9

*RQ3-D4: Descriptive Statistics for Teacher Overall Job Satisfaction (Educational Level Attained)*

| <b>RQ3-D4: Descriptive Statistics for Teacher Overall Job Satisfaction (Educational Level Attained)</b> |                         |                           |                                  |               |
|---|-------------------------|---------------------------|----------------------------------|---------------|
|   |                         | Bachelor's Degree (%) [X] | Master's Degree or Above (%) [X] | Total (%) [X] |
| [1]   | Very Dissatisfied       | 0 (0%)                    | 2 (2.2%)                         | 2 (1.3%)      |
| [2]   | Moderately Dissatisfied | 2 (2.9%)                  | 3 (3.3%)                         | 5 (3.1%)      |
| [3]   | Slightly Dissatisfied   | 1 (1.5%)                  | 0 (0%)                           | 1 (0.6%)      |
| [4]   | Slightly Satisfied      | 11 (16.2%)                | 8 (8.8%)                         | 19 (11.9%)    |
| [5]   | Moderately Satisfied    | 28 (41.2%)                | 32 (35.2%)                       | 60 (37.7%)    |
| [6]   | Very Satisfied          | 26 (38.2%)                | 46 (50.5%)                       | 72 (45.3%)    |
| Total   |                         | 68 (42.8%) [5.103]        | 91 (57.2%) [5.231]               | 159 [5.176]   |

***Years of Experience Cross Tabulations for Teacher Overall Job Satisfaction.***

Cross tabulations for teacher overall job satisfaction with respect to years of experience in the school district were calculated. The highest mean scores were reported by teachers in their fourth year ( $\bar{x} = 5.700$ ) and fifth year ( $\bar{x} = 5.611$ ) in the school district, while the lowest mean scores were reported by teachers in their first year in the school district ( $\bar{x} = 4.848$ ) and teachers in their third year in the district ( $\bar{x} = 5.000$ ) (see Table 10 (RQ3-D5)).

***Significant Other Status Cross Tabulations for Teacher Overall Job***

***Satisfaction.*** Cross tabulations for teacher overall job satisfaction with respect to significant other status (having a husband/wife/boyfriend/girlfriend/partner in the village) were calculated. Teachers with a significant other living in the village reported a mean score of 5.190. Teachers without a significant other living in the village reported a mean score of 5.191 (see Table 11 (RQ3-D6)).

Table 10

*RQ3-D5: Descriptive Statistics for Teacher Overall Job Satisfaction (Years of Experience in the School District)*

| RQ3-D5: Descriptive Statistics for Teacher Overall Job Satisfaction (Years of Experience in the School District) |                    |                    |                   |                   |                    |                    |                    |               |
|--|--------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|---------------|
|  | 1 Year (%) [X]     | 2 Years (%) [X]    | 3 Years (%) [X]   | 4 Years (%) [X]   | 5 Years (%) [X]    | 6-9 Years (%) [X]  | 10+ Years (%) [X]  | Total (%) [X] |
| [1] Very Dissatisfied  | 1 (3.0%)           | 1 (3.8%)           | 0 (0%)            | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 2 (1.2%)      |
| [2] Moderately Dissatisfied  | 2 (6.1%)           | 0 (0%)             | 1 (6.3%)          | 0 (0%)            | 0 (0%)             | 1 (3.1%)           | 0 (0%)             | 5 (3.0%)      |
| [3] Slightly Dissatisfied  | 0 (0%)             | 1 (3.8%)           | 1 (6.3%)          | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 2 (1.2%)      |
| [4] Slightly Satisfied   | 3 (9.1%)           | 0 (0%)             | 2 (12.5%)         | 2 (20.0%)         | 2 (11.1%)          | 6 (18.8%)          | 5 (17.9%)          | 19 (11.6%)    |
| [5] Moderately Satisfied   | 13 (39.4%)         | 8 (30.8%)          | 5 (31.3%)         | 5 (50.0%)         | 9 (50.0%)          | 11 (34.4%)         | 11 (39.3%)         | 62 (37.8%)    |
| [6] Very Satisfied   | 13 (39.4%)         | 16 (61.5%)         | 7 (43.8%)         | 4 (40.0%)         | 8 (44.4%)          | 14 (43.8%)         | 12 (42.9%)         | 74 (45.1%)    |
| Total  | 33 (20.1%) [4.848] | 26 (15.9%) [5.385] | 16 (9.8%) [5.000] | 10 (6.1%) [5.700] | 18 (10.1%) [5.611] | 32 (19.5%) [5.156] | 28 (17.1%) [5.250] | 164 [5.171]   |

Table 11

*RQ3-D6: Descriptive Statistics for Teacher Overall Job Satisfaction (Having a Significant Other Living in the Village)*

| RQ3-D6: Descriptive Statistics for Teacher Overall Job Satisfaction (Having a Significant Other Living in the Village) |   |  |               |
|--|---|--|---------------|
|  | Significant Other Living in Village (%) [X] | No Significant Other Living in the Village (%) [X] | Total (%) [X] |
| [1] Very Dissatisfied  | 1 (1.3%)                                    | 1 (1.2%)   | 2 (1.2%)      |
| [2] Moderately Dissatisfied  | 1 (1.3%)                                    | 3 (3.6%)   | 4 (2.5%)      |
| [3] Slightly Dissatisfied  | 0 (0%)                                      | 2 (2.4%)   | 2 (1.2%)      |
| [4] Slightly Satisfied   | 12 (15.2%)                                  | 7 (8.4%)   | 19 (11.7%)    |
| [5] Moderately Satisfied   | 31 (39.2%)                                  | 30 (36.1%)   | 61 (37.7%)    |
| [6] Very Satisfied   | 34 (43.0%)                                  | 40 (48.2%)   | 74 (45.7%)    |
| Total  | 79 (48.8%) [5.190]                          | 83 (51.2%) [5.193]                                 | 162 [5.191]   |

***Grade Level Taught Cross Tabulations for Teacher Overall Job Satisfaction.***

Cross tabulations for teacher overall job satisfaction with respect to grade level taught were calculated. Elementary teachers reported a mean score of 5.193, secondary teachers reported a mean score of 5.038, and teachers working in both the elementary and secondary reported a mean score of 5.177 (see Table 12 (RQ3-D7)).

Table 12

*RQ3-D7: Descriptive Statistics for Teacher Overall Job Satisfaction (Grade Level Taught)*

| <b>RQ3-D7: Descriptive Statistics for Teacher Overall Job Satisfaction (Grade Level Taught)</b> |                         |                    |                    |                    |               |
|---|-------------------------|--------------------|--------------------|--------------------|---------------|
|   |                         | Elementary (%) [X] | Secondary (%) [X]  | Both (%) [X]       | Total (%) [X] |
| [1]   | Very Dissatisfied       | 2 (2.4%)           | 0 (0%)             | 0 (0%)             | 2 (1.2%)      |
| [2]   | Moderately Dissatisfied | 0 (0%)             | 4 (7.7%)           | 1 (3.4%)           | 5 (3.0%)      |
| [3]   | Slightly Dissatisfied   | 1 (1.2%)           | 1 (1.9%)           | 0 (0%)             | 2 (1.2%)      |
| [4]   | Slightly Satisfied      | 9 (10.8%)          | 8 (15.4%)          | 2 (6.9%)           | 19 (11.6%)    |
| [5]   | Moderately Satisfied    | 36 (43.4%)         | 15 (28.8%)         | 10 (34.5%)         | 61 (27.2%)    |
| [6]   | Very Satisfied          | 35 (42.2%)         | 24 (46.2%)         | 16 (55.2%)         | 75 (45.7%)    |
| Total   |                         | 83 (50.6%) [5.193] | 52 (31.7%) [5.038] | 29 (17.7%) [5.379] | 164 [5.177]   |

**Research Question 4 (RQ4).** How do teachers in the Bering Strait School District rate their propensity to leave the school, school district, and the teaching profession?

To answer RQ4, a codebook was created with a frequency table. In the codebook, values from 1.0 - 6.0 were assigned to the six possible responses on the Likert scale. The values assigned to possible responses were as follows: 1.0 = very unlikely; 2.0 = moderately unlikely ; 3.0 = slightly unlikely; 4.0 = slightly likely; 5.0 = moderately likely; 6.0 = very likely. The mean scores for propensity to leave for leaving the school, the school district, and the teaching profession were calculated (see Table 13 (RQ4-D1)).

As a group, while teachers reported they were not likely to leave their school, school district, or the teaching profession, they were notably more likely to leave their school or school district than to leave the teaching profession. According to the mean scores calculated from teacher responses, teachers reported that they were approximately slightly unlikely (= 2.0) to leave their school ( $\bar{x} = 2.05$ ) and school district ( $\bar{x} = 1.98$ ),

Table 13

*RQ4-D1: Descriptive Statistics for Teacher Propensity to Leave the School, School District, and Profession of Teaching (Mean Scores)*

| <b>RQ4-D1: Descriptive Statistics for Teacher Propensity to Leave the School, School District, and Profession of Teaching (Mean Scores)</b> |       |       |     |     |     |
|---|-------|-------|-----|-----|-----|
|   | Mean  | SD    | Min | Max | N   |
| Propensity to Leave the School (Q24)  | 2.058 | 1.928 | 1   | 6   | 155 |
| Propensity to Leave the School District (Q25)   | 1.980 | 1.856 | 1   | 6   | 151 |
| Propensity to Leave the Teaching Profession (Q26)   | 1.205 | 0.768 | 1   | 6   | 156 |
| 1.0 = Very Unlikely; 2.0 = Moderately Unlikely ; 3.0 = Slightly Unlikely; 4.0 = Slightly Likely; 5.0 = Moderately Likely; 6.0 = Very Likely |       |       |     |     |     |

while with a 1.20 mean score they were approximately very unlikely (= 1.0) to leave the teaching profession.

***Gender Cross Tabulations for Propensity to Leave the School.*** Cross tabulations for teacher propensity to leave the school with respect to gender were calculated. Female teachers reported a mean score of 1.970, while male teachers reported a mean score of 2.241 (see Table 14 (RQ4-D2)).

Table 14

*RQ4-D2: Descriptive Statistics for Teacher Propensity to Leave the School (Gender)*

| <b>RQ4-D2: Descriptive Statistics for Teacher Propensity to Leave the School (Gender)</b> |                     |                    |                    |               |
|---|---------------------|--------------------|--------------------|---------------|
|   |                     | Female (%) [X]     | Male (%) [X]       | Total (%) [X] |
| [1]   | Very Unlikely       | 74 (74.7%)         | 35 (64.8%)         | 109 (71.2%)   |
| [2]   | Moderately Unlikely | 5 (5.0%)           | 7 (13%)            | 12 (7.8%)     |
| [3]   | Slightly Unlikely   | 2 (2.0%)           | 0 (0%)             | 2 (1.3%)      |
| [4]   | Slightly Likely     | 1 (1.0%)           | 0 (0%)             | 1 (0.7%)      |
| [5]   | Moderately Likely   | 1 (1.0%)           | 0 (0%)             | 1 (0.7%)      |
| [6]   | Very Likely         | 16 (16.2%)         | 12 (22.2%)         | 28 (18.3%)    |
| Total   |                     | 99 (64.7%) [1.970] | 54 (35.3%) [2.241] | 153 [2.065]   |

***Age Cross Tabulations for Propensity to Leave the School.*** Cross tabulations for teacher propensity to leave the school with respect to age were calculated. The highest mean scores were reported in the age 35-99 group ( $\bar{x} = 3.143$ ) and the 22-25 age group ( $\bar{x} = 2.700$ ). The lowest mean scores were reported in the age 60+ group ( $\bar{x} = 1.166$ ) and the 40-49 age group ( $\bar{x} = 1.607$ ) (see Table 15 (RQ4-D3)).

Table 15

*RQ4-D3: Descriptive Statistics for Teacher Propensity to Leave the School (Age)*

| RQ4-D3: Descriptive Statistics for Teacher Propensity to Leave the School (Age) |                   |                    |                    |                   |                    |                    |                    |               |
|---|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------|
|   | Age 22-25 (%) [X] | Age 26-29 (%) [X]  | Age 30-34 (%) [X]  | Age 35-39 (%) [X] | Age 40-49 (%) [X]  | Age 50-59 (%) [X]  | Age 60+ (%) [X]    | Total (%) [X] |
| [1] Very Unlikely   | 5 (50.0%)         | 15 (83.0%)         | 19 (67.9%)         | 8 (57.1%)         | 23 (82.1%)         | 23 (62.2%)         | 15 (83.3%)         | 108 (70.6%)   |
| [2] Moderately Unlikely   | 2 (20.0%)         | 0 (0%)             | 2 (7.1%)           | 0 (0%)            | 2 (7.1%)           | 4 (10.8%)          | 3 (16.7)           | 13 (8.5%)     |
| [3] Slightly Unlikely   | 0 (0%)            | 1 (5.5%)           | 1 (3.6%)           | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 2 (1.3%)      |
| [4] Slightly Likely   | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)            | 0 (0%)             | 1 (2.7%)           | 0 (0%)             | 1 (0.7%)      |
| [5] Moderately Likely   | 0 (0%)            | 0 (0%)             | 1 (3.6%)           | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 1 (0.7%)      |
| [6] Very Likely   | 3 (30.0%)         | 2 (11.0%)          | 5 (17.9%)          | 6 (42.9%)         | 3 (10.7%)          | 9 (24.3%)          | 0 (0%)             | 28 (18.3%)    |
| Total   | 10 (6.5%) [2.700] | 18 (11.8%) [1.667] | 28 (18.3%) [2.179] | 14 (9.2%) [3.143] | 28 (18.3%) [1.607] | 37 (24.2%) [2.297] | 18 (11.7%) [1.166] | 153 [2.072]   |

***Educational Level Attained Cross Tabulations for Propensity to Leave the School.*** Cross tabulations for teacher propensity to leave the school with respect to highest educational level attained were calculated. Teachers whose highest level of education attained was a bachelor's degree reported a mean score of 2.234. Teachers that attained a master's degree or above reported a mean score of 1.953 (see Table 16 (RQ4-D4)).

Table 16

*RQ4-D4: Descriptive Statistics for Teacher Propensity to Leave the School (Education Level Attained)*

| <b>RQ4-D4: Descriptive Statistics for Teacher Propensity to Leave the School (Educational Level Attained)</b> |                     |                           |                                  |               |
|---|---------------------|---------------------------|----------------------------------|---------------|
|   |                     | Bachelor's Degree (%) [X] | Master's Degree or Above (%) [X] | Total (%) [X] |
| [1]   | Very Unlikely       | 42 (65.6%)                | 64 (75.3%)                       | 106 (71.1%)   |
| [2]   | Moderately Unlikely | 6 (9.4%)                  | 6 (7.1%)                         | 12 (8.1%)     |
| [3]   | Slightly Unlikely   | 2 (3.1%)                  | 0 (0%)                           | 2 (1.3%)      |
| [4]   | Slightly Likely     | 0 (0%)                    | 0 (0%)                           | 0 (0%)        |
| [5]   | Moderately Likely   | 1 (1.6%)                  | 0 (0%)                           | 1 (0.7%)      |
| [6]   | Very Likely         | 13 (20.3%)                | 15 (17.6%)                       | 28 (18.8%)    |
| Total   |                     | 64 (43.0%) [2.234]        | 85 (57.0%) [1.953]               | 149 [2.074]   |

***Years of Experience Cross Tabulations for Propensity to Leave the School.***

Cross tabulations for teacher propensity to leave the school with respect to years of experience in the school district were calculated. The highest mean scores were reported by teachers in their first year in the school district ( $\bar{x} = 2.364$ ) and teachers in their second year in the school district ( $\bar{x} = 2.400$ ). The lowest mean scores were reported by teachers with 10+ years of experience in the school district ( $\bar{x} = 1.250$ ) (see Table 17 (RQ4-D5)).

***Significant Other Status Cross Tabulations for Propensity to Leave the School.***

Cross tabulations for teacher propensity to leave the school with respect to significant other status (having a husband/wife/boyfriend/girlfriend/partner in the village) were calculated. Teachers with a significant other living in the village reported a mean score of 1.595, while teachers without a significant other living in the village reported a mean score of 2.538 (see Table 18 (RQ4-D6)).



Table 17

*RQ4-D5: Descriptive Statistics for Teacher Propensity to Leave the School (Years of Experience in the School District)*

| RQ4-D5: Descriptive Statistics for Teacher Propensity to Leave the School (Years of Experience in the School District) |  |                    |                    |                   |                   |                    |                    |                    |               |
|--|--|--------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|---------------|
|  |  | 1 Year (%) [X]     | 2 Years (%) [X]    | 3 Years (%) [X]   | 4 Years (%) [X]   | 5 Years (%) [X]    | 6-9 Years (%) [X]  | 10+ Years (%) [X]  | Total (%) [X] |
| [1] Very Unlikely  |  | 21 (63.6%)         | 14 (56.0%)         | 10 (71.4%)        | 8 (80.0%)         | 13 (72.2%)         | 20 (70.0%)         | 22 (91.7%)         | 108 (70.6%)   |
| [2] Moderately Unlikely  |  | 3 (9.1%)           | 5 (20.0%)          | 1 (7.1%)          | 1 (10.0%)         | 1(5.6%)            | 1 (3.4%)           | 1 (4.2%)           | 13 (8.5%)     |
| [3] Slightly Unlikely  |  | 1 (3.0%)           | 0 (0%)             | 0 (0%)            | 0 (0%)            | 0 (0%)             | 1 (3.4%)           | 0 (0%)             | 2 (1.3%)      |
| [4] Slightly Likely  |  | 0 (0%)             | 0 (0%)             | 1 (7.1%)          | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 1 (0.7%)      |
| [5] Moderately Likely  |  | 0 (0%)             | 0 (0%)             | 0 (0%)            | 0 (0%)            | 0 (0%)             | 1 (3.4%)           | 0 (0%)             | 1 (0.7%)      |
| [6] Very Likely  |  | 8 (24.2%)          | 6 (24.0%)          | 2 (14.3%)         | 1 (10.0%)         | 4 (22.2%)          | 6 (20.7%)          | 1 (4.2%)           | 28 (18.3%)    |
| Total  |  | 33 (21.6%) [2.364] | 25 (16.3%) [2.400] | 14 (9.2%) [2.000] | 10 (6.5%) [1.600] | 18 (11.8%) [2.167] | 29 (19.0%) [2.276] | 24 (15.7%) [1.250] | 153 [2.072]   |

Table 18

*RQ4-D6: Descriptive Statistics for Teacher Propensity to Leave the School (Significant Other Status)*

| RQ4-D6: Descriptive Statistics for Teacher Propensity to Leave the School (Significant Other Status) |  |   |  |               |
|--|--|---|--|---------------|
|  |  | Significant Other Living in Village (%) [X] | No Significant Other Living in the Village (%) [X] | Total (%) [X] |
| [1] Very Unlikely  |  | 62 (83.8%)                                  | 45 (57.7%)   | 107 (70.4%)   |
| [2] Moderately Unlikely  |  | 3 (4.1%)                                    | 10 (12.8%)   | 13 (8.6%)     |
| [3] Slightly Unlikely  |  | 1 (1.4%)                                    | 1 (1.3%)   | 2 (1.3%)      |
| [4] Slightly Likely  |  | 0 (0%)                                      | 1 (1.3%)   | 1 (0.7%)      |
| [5] Moderately Likely  |  | 1 (1.4%)                                    | 0 (0%)   | 1 (0.7%)      |
| [6] Very Likely  |  | 7 (9.5%)                                    | 21 (26.9%)   | 28 (18.4%)    |
| Total  |  | 74 (48.7%) [1.595]                          | 78 (51.3%) [2.538]                                 | 152 [2.079]   |

### ***Grade Level Taught Cross Tabulations for Propensity to Leave the School.***

Cross tabulations for teacher propensity to leave the school with respect to grade level taught were calculated. Elementary teachers reported a mean score of 2.013, secondary

teachers reported a mean score of 2.213, and teachers working in both the elementary and secondary reported a mean score of 2.065 (see Table 19 (RQ4-D7)).

Table 19

*RQ4-D7: Descriptive Statistics for Teacher Propensity to Leave the School (Grade Level Taught)*

| <b>RQ4-D7: Descriptive Statistics for Teacher Propensity to Leave the School (Grade Level Taught)</b> |                     |                              |                             |                        |                         |
|---|---------------------|------------------------------|-----------------------------|------------------------|-------------------------|
|   |                     | Elementary (%) [ $\bar{X}$ ] | Secondary (%) [ $\bar{X}$ ] | Both (%) [ $\bar{X}$ ] | Total (%) [ $\bar{X}$ ] |
| [1]   | Very Unlikely       | 57 (73.1%)                   | 31                          | 21                     | 109 (71.2%)             |
| [2]   | Moderately Unlikely | 5 (6.4%)                     | 5                           | 3                      | 12 (7.8%)               |
| [3]   | Slightly Unlikely   | 2 (2.6%)                     | 0                           | 0                      | 2 (1.3%)                |
| [4]   | Slightly Likely     | 0 (0%)                       | 1                           | 0                      | 1 (0.7%)                |
| [5]   | Moderately Likely   | 0 (0%)                       | 1                           | 0                      | 1 (0.7%)                |
| [6]   | Very Likely         | 14 (17.9%)                   | 9                           | 5                      | 28 (18.3%)              |
| Total   |                     | 78 (51.0%) [2.013]           | 47 (30.7%) [2.213]          | 29 (19.0%) [1.966]     | 153 [2.065]             |

***Gender Cross Tabulations for Teacher Propensity to Leave the School District.***

Cross tabulations for teacher propensity to leave the school district with respect to gender were calculated. Female teachers reported a mean score of 2.075. Male teachers reported a mean score of 1.938 (see Table 20 (RQ4-D8)).

***Age Cross Tabulations for Teacher Propensity to Leave the School District.***

Cross tabulations for teacher propensity to leave the school district with respect to age were calculated. The highest mean scores were reported in the age 35-99 group ( $\bar{x} = 2.786$ ) and the 50-59 age group ( $\bar{x} = 2.424$ ). The lowest mean scores were reported in the age 60+ group ( $\bar{x} = 1.158$ ) and the 40-49 age group ( $\bar{x} = 1.556$ ) (see Table 21 (RQ4-D9)).

Table 20

*RQ4-D8: Descriptive Statistics for Teacher Propensity to Leave the School District**(Gender)*

| <b>RQ4-D8: Descriptive Statistics for Teacher Propensity to Leave the School District (Gender)</b> |                     |                    |                    |               |
|--|---------------------|--------------------|--------------------|---------------|
|  |                     | Female (%) [X]     | Male (%) [X]       | Total (%) [X] |
| [1]  | Very Unlikely       | 35 (66.0%)         | 73 (75.3%)         | 108 (72.0%)   |
| [2]  | Moderately Unlikely | 8 (15.1%)          | 5 (5.2%)           | 13 (8.7%)     |
| [3]  | Slightly Unlikely   | 0 (0%)             | 2 (2.1%)           | 2 (1.3%)      |
| [4]  | Slightly Likely     | 0 (0%)             | 1 (1.0%)           | 1 (0.7%)      |
| [5]  | Moderately Likely   | 1 (1.9%)           | 1 (1.0%)           | 2 (1.3%)      |
| [6]  | Very Likely         | 9 (17.0%)          | 15 (15.5%)         | 24 (16.0%)    |
| Total  |                     | 53 (35.3%) [2.075] | 97 (64.7%) [1.938] | 150 [1.987]   |

Table 21

*RQ4-D9: Descriptive Statistics for Teacher Propensity to Leave the School District (Age)*

| <b>RQ4-D9: Descriptive Statistics for Teacher Propensity to Leave the School District (Age)</b> |                     |                   |                    |                    |                   |                    |                    |                    |               |
|---|---------------------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------|
|   |                     | Age 22-25 (%) [X] | Age 26-29 (%) [X]  | Age 30-34 (%) [X]  | Age 35-39 (%) [X] | Age 40-49 (%) [X]  | Age 50-59 (%) [X]  | Age 60+ (%) [X]    | Total (%) [X] |
| [1]   | Very Unlikely       | 5 (50.0%)         | 15 (83.3%)         | 18 (64.3%)         | 9 (64.3%)         | 24 (88.9%)         | 20 (60.6%)         | 16 (84.2%)         | 107 (71.8%)   |
| [2]   | Moderately Unlikely | 3 (30.0%)         | 0 (0%)             | 3 (10.7%)          | 0 (0%)            | 0 (0%)             | 4 (12.1%)          | 3 (15.8%)          | 13 (8.7%)     |
| [3]   | Slightly Unlikely   | 0 (0%)            | 1 (5.6%)           | 1 (3.6%)           | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 2 (1.3%)      |
| [4]   | Slightly Likely     | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)            | 0 (0%)             | 1 (3.0%)           | 0 (0%)             | 1 (0.7%)      |
| [5]   | Moderately Likely   | 1 (10.0%)         | 0 (0%)             | 1 (3.6%)           | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 2 (1.3%)      |
| [6]   | Very Likely         | 1 (10.0%)         | 2 (11.1%)          | 5 (17.9%)          | 5 (35.7%)         | 3 (11.1%)          | 8 (24.2%)          | 0 (0%)             | 24 (16.1%)    |
| Total   |                     | 10 (6.7%) [2.200] | 18 (12.1%) [1.667] | 28 (18.8%) [2.214] | 14 (9.4%) [2.786] | 27 (18.1%) [1.556] | 33 (22.1%) [2.424] | 19 (12.8%) [1.158] | 149 [1.993]   |

***Educational Level Cross Tabulations for Teacher Propensity to Leave the***

***School District.*** Cross tabulations for teacher propensity to leave the school district with respect to highest educational level attained were calculated. Teachers whose highest level of education attained was a bachelor's degree reported a mean score of 2.016. Teachers that attained a master's degree or above reported a mean score of 1.976 (see Table 22 (RQ4-D10)).

Table 22

*RQ4-D10: Descriptive Statistics for Teacher Propensity to Leave the School District**(Education Level Attained)*

| <b>RQ4-D10: Descriptive Statistics for Teacher Propensity to Leave the School District (Educational Level Attained)</b> |                                     |  |                         |
|---|-------------------------------------|--|-------------------------|
|   | Bachelor's Degree (%) [ $\bar{X}$ ] | Master's Degree or Above (%) [ $\bar{X}$ ] | Total (%) [ $\bar{X}$ ] |
| [1] Very Unlikely   | 43 (69.4%)                          | 62 (73.8%)                                 | 105 (71.9%)             |
| [2] Moderately Unlikely   | 6 (9.7%)                            | 7 (8.3%)                                   | 13 (8.9%)               |
| [3] Slightly Unlikely   | 2 (3.2%)                            | 0 (0%)                                     | 2 (1.4%)                |
| [4] Slightly Likely   | 0 (0%)                              | 0 (0%)                                     | 0 (0%)                  |
| [5] Moderately Likely   | 2 (3.2%)                            | 0 (0%)                                     | 2 (1.4%)                |
| [6] Very Likely   | 9 (14.5%)                           | 15 (17.9%)                                 | 24 (16.4%)              |
| <b>Total</b>  | <b>62 (42.5%) [2.016]</b>           | <b>84 (57.5%) [1.976]</b>                  | <b>146 [1.993]</b>      |

***Years of Experience Cross Tabulations for Teacher Propensity to Leave the School District.*** Cross tabulations for teacher propensity to leave the school district with respect to years of experience in the school district were calculated. The highest mean scores were reported by teachers in their first year of teaching in the school district ( $\bar{x} = 2.281$ ) and teachers in their second year of teaching in the school district ( $\bar{x} = 2.273$ ). The lowest mean scores were reported by teachers with 10+ years of experience in the school district ( $\bar{x} = 1.250$ ) (see Table 23 (RQ4-D11)).

***Significant Other Status Cross Tabulations for Teacher Propensity to Leave the School District.*** Cross tabulations for teacher propensity to leave the school district with respect to significant other status were calculated. Teachers with a significant other living in the village reported a mean score of 1.527, while teachers without a significant other living in the village reported a mean score of 2.473 (see Table 24 (RQ4-D12)).

Table 23

*RQ4-D11: Descriptive Statistics for Teacher Propensity to Leave the School District**(Years of Experience in the School District)*

| <b>RQ4-D11: Descriptive Statistics for Teacher Propensity to Leave the School District (Years of Experience in the School District)</b> |                    |                    |                   |                   |                    |                    |                    |               |  |
|---|--------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|---------------|--|
|   | 1 Year (%) [X]     | 2 Years (%) [X]    | 3 Years (%) [X]   | 4 Years (%) [X]   | 5 Years (%) [X]    | 6-9 Years (%) [X]  | 10+ Years (%) [X]  | Total (%) [X] |  |
| [1] Very Unlikely   | 20 (62.5%)         | 13 (59.1%)         | 9 (69.2%)         | 9 (90%)           | 13 (72.2%)         | 21 (70.0%)         | 22 (91.7%)         | 107 (71.8%)   |  |
| [2] Moderately Unlikely   | 4 (12.5%)          | 4 (18.2%)          | 1 (7.7%)          | 0 (0%)            | 1 (5.6%)           | 2 (6.7%)           | 1 (4.2%)           | 13 (8.7%)     |  |
| [3] Slightly Unlikely   | 1 (3.1%)           | 0 (0%)             | 0 (0%)            | 0 (0%)            | 0 (0%)             | 1 (3.3%)           | 0 (0%)             | 2 (1.3%)      |  |
| [4] Slightly Likely   | 0 (0%)             | 0 (0%)             | 1 (7.7%)          | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 1 (0.7%)      |  |
| [5] Moderately Likely   | 0 (0%)             | 1 (4.5%)           | 0 (0%)            | 0 (0%)            | 0 (0%)             | 1 (3.3%)           | 0 (0%)             | 2 (1.3%)      |  |
| [6] Very Likely   | 7 (21.9%)          | 4 (18.2%)          | 2 (15.4%)         | 1 (10.0%)         | 4 (22.2%)          | 5 (16.7%)          | 1 (4.2%)           | 24 (16.1%)    |  |
| Total   | 32 (21.5%) [2.281] | 22 (14.8%) [2.273] | 13 (8.7%) [2.077] | 10 (6.7%) [1.500] | 18 (12.1%) [2.167] | 30 (20.1%) [2.100] | 24 (16.1%) [1.250] | 149 [1.993]   |  |

Table 24

*RQ4-D12: Descriptive Statistics for Teacher Propensity to Leave the School District**(Significant Other Status)*

| <b>RQ4-D12: Descriptive Statistics for Teacher Propensity to Leave the School District (Significant Other Status)</b> |   |  |               |
|---|---|--|---------------|
|   | Significant Other Living in Village (%) [X] | No Significant Other Living in the Village (%) [X] | Total (%) [X] |
| [1] Very Unlikely   | 63 (85.1%)                                  | 43 (58.1%)   | 106 (71.6%)   |
| [2] Moderately Unlikely   | 3 (4.0%)                                    | 10 (13.5%)   | 13 (8.8%)     |
| [3] Slightly Unlikely   | 1 (1.4%)                                    | 1 (1.4%)   | 2 (1.4%)      |
| [4] Slightly Likely   | 0 (0%)                                      | 1 (1.4%)   | 1 (1.4%)      |
| [5] Moderately Likely   | 1 (1.4%)                                    | 1 (1.4%)   | 2 (1.4%)      |
| [6] Very Likely   | 6 (8.1%)                                    | 18 (24.3%)   | 24 (16.2%)    |
| Total   | 74 (50.0%) [1.527]                          | 74 (50.0%) [2.473]                                 | 148 [2.000]   |

***Grade Level Taught Cross Tabulations for Teacher Propensity to Leave the School District.*** Cross tabulations for teacher propensity to leave the school district with respect to grade level taught were calculated. Elementary teachers reported a mean score of 1.895, secondary teachers reported a mean score of 2.217, and teachers working in

both the elementary and secondary reported a mean score of 1.857 (see Table 25 (RQ4-D13)).

Table 25

*RQ4-D13: Descriptive Statistics for Teacher Propensity to Leave the School District (Grade Level Taught)*

| <b>RQ4-D13: Descriptive Statistics for Teacher Propensity to Leave the School District (Grade Level Taught)</b> |                     |                    |                    |                    |               |
|---|---------------------|--------------------|--------------------|--------------------|---------------|
|   |                     | Elementary (%) [X] | Secondary (%) [X]  | Both (%) [X]       | Total (%) [X] |
| [1]   | Very Unlikely       | 57 (75.0%)         | 31 (67.3%)         | 20 (71.4%)         | 108 (72.0%)   |
| [2]   | Moderately Unlikely | 5 (6.6%)           | 4 (8.7%)           | 4 (14.3%)          | 13 (8.7%)     |
| [3]   | Slightly Unlikely   | 2 (2.6%)           | 0 (0%)             | 0 (0%)             | 2 (1.3%)      |
| [4]   | Slightly Likely     | 0 (0%)             | 1 (2.2%)           | 0 (0%)             | 1 (0.7%)      |
| [5]   | Moderately Likely   | 1 (1.3%)           | 1 (2.2%)           | 0 (0%)             | 2 (1.3%)      |
| [6]   | Very Likely         | 11 (14.5%)         | 9 (19.6%)          | 4 (14.3%)          | 24 (16%)      |
| Total   |                     | 76 (50.7%) [1.895] | 46 (30.7%) [2.217] | 28 (18.7%) [1.857] | 150 [1.987]   |

***Gender Cross Tabulations for Propensity to Leave the Teaching Profession.***

Cross tabulations for teacher propensity to leave the teaching profession with respect to gender were calculated. Female teachers reported a mean score of 1.111. Male teachers reported a mean score of 1.382 (see Table 26 (RQ4-D14)).

***Age Cross Tabulations for Propensity to Leave the Teaching Profession.*** Cross tabulations for teacher propensity to leave the teaching profession with respect to age were calculated. The highest mean scores were reported in the age 22-25 group (1.500), the age 26-29 group (1.389), and the age 30-34 group (1.393). The lowest mean scores were reported in the age 40-49 group (1.107), the age 50-59 group (1.135), and the age 60+ group (1.053) (see Table 27 (RQ4-D15)).

Table 26

*RQ4-D14: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Gender)*

| <b>RQ4-D14: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Gender)</b> |                     |                    |                    |               |
|---|---------------------|--------------------|--------------------|---------------|
|   |                     | Female (%) [X]     | Male (%) [X]       | Total (%) [X] |
| [1]   | Very Unlikely       | 95 (96.0%)         | 45 (81.8%)         | 140 (90.9%)   |
| [2]   | Moderately Unlikely | 2 (2.0%)           | 4 (7.3%)           | 6 (5.8%)      |
| [3]   | Slightly Unlikely   | 0 (0%)             | 2 (3.6%)           | 2 (1.3%)      |
| [4]   | Slightly Likely     | 0 (0%)             | 3 (5.5%)           | 3 (1.9%)      |
| [5]   | Moderately Likely   | 1 (1.0%)           | 1 (1.8%)           | 2 (1.3%)      |
| [6]   | Very Likely         | 1 (1.0%)           | 0 (0%)             | 1 (0.6%)      |
| Total   |                     | 99 (64.3%) [1.111] | 55 (35.7%) [1.382] | 154 [1.208]   |

Table 27

*RQ4-D15: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Age)*

| <b>RQ4-D15: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Age)</b> |                     |                   |                    |                    |                   |                    |                    |                    |               |
|--|---------------------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------|
|  |                     | Age 22-25 (%) [X] | Age 26-29 (%) [X]  | Age 30-34 (%) [X]  | Age 35-39 (%) [X] | Age 40-49 (%) [X]  | Age 50-59 (%) [X]  | Age 60+ (%) [X]    | Total (%) [X] |
| [1]  | Very Unlikely       | 8 (80%)           | 16 (88.9%)         | 25 (89.3%)         | 13 (92.9%)        | 26 (92.9%)         | 34 (91.9%)         | 18 (94.7%)         | 140 (90.9%)   |
| [2]  | Moderately Unlikely | 1 (10%)           | 1 (5.6%)           | 0 (0%)             | 0 (0%)            | 1 (3.6%)           | 2 (5.4%)           | 1 (5.3%)           | 6 (3.9%)      |
| [3]  | Slightly Unlikely   | 0 (0%)            | 0 (0%)             | 1 (3.6%)           | 0 (0%)            | 1 (3.6%)           | 0 (0%)             | 0 (0%)             | 2 (1.3%)      |
| [4]  | Slightly Likely     | 0 (0%)            | 1 (5.6%)           | 0 (0%)             | 1 (7.1%)          | 0 (0%)             | 1 (2.7%)           | 0 (0%)             | 3 (1.9%)      |
| [5]  | Moderately Likely   | 1 (10%)           | 0 (0%)             | 1 (3.6%)           | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 2 (1.3%)      |
| [6]  | Very Likely         | 0 (0%)            | 0 (0%)             | 1 (3.6%)           | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 1 (0.6%)      |
| Total  |                     | 10 (6.5%) [1.500] | 18 (11.7%) [1.389] | 28 (18.2%) [1.393] | 14 (9.1%) [1.214] | 28 (18.2%) [1.107] | 37 (24.0%) [1.135] | 19 (12.3%) [1.053] | 154 [1.208]   |

***Educational Level Cross Tabulations for Propensity to Leave the Teaching***

***Profession.*** Cross tabulations for teacher propensity to leave the teaching profession with respect to highest educational level attained were calculated. Teachers whose highest level of education attained was a bachelor's degree reported a mean score of

1.250. Teachers that attained a master's degree or above reported a mean score of 1.174 (see Table 28 (RQ4-D16)).

Table 28

*RQ4-D16: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Educational Level Attained)*

| <b>RQ4-D16: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Educational Level Attained)</b> |                     |                           |                                  |               |
|---|---------------------|---------------------------|----------------------------------|---------------|
|   |                     | Bachelor's Degree (%) [X] | Master's Degree or Above (%) [X] | Total (%) [X] |
| [1]   | Very Unlikely       | 57 (89.1%)                | 80 (93.0%)                       | 137 (91.3%)   |
| [2]   | Moderately Unlikely | 3 (4.7%)                  | 2 (2.3%)                         | 5 (3.3%)      |
| [3]   | Slightly Unlikely   | 1 (1.6%)                  | 1 (1.2%)                         | 2 (1.3%)      |
| [4]   | Slightly Likely     | 1 (1.6%)                  | 2 (2.3%)                         | 3 (2.0%)      |
| [5]   | Moderately Likely   | 2 (3.1%)                  | 0 (0%)                           | 2 (1.3%)      |
| [6]   | Very Likely         | 0 (0%)                    | 1 (1.2%)                         | 1 (0.7%)      |
| Total   |                     | 64 (42.7%) [1.250]        | 86 (57.3%) [1.174]               | 150 [1.207]   |

***Years of Experience Cross Tabulations for Propensity to Leave the Teaching Profession.*** Cross tabulations for teacher propensity to leave the teaching profession with respect to years of experience in the school district were calculated. The highest mean scores were reported by teachers in their second year of teaching in the school district (1.48). The lowest mean scores were reported by teachers with 4 years of experience in the school district (1.000) and teachers with five years of experience in the school district (1.000) (see Table 29 (RQ4-D17)).



Table 29

*RQ4-D17: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Years of Experience in the School District)*

| RQ4-D17: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Years of Experience in the School District) |                    |                   |                   |                   |                    |                    |                    |               |  |
|--|--------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|---------------|--|
|  | 1 Year (%) [X]     | 2 Years (%) [X]   | 3 Years (%) [X]   | 4 Years (%) [X]   | 5 Years (%) [X]    | 6-9 Years (%) [X]  | 10+ Years (%) [X]  | Total (%) [X] |  |
| [1] Very Unlikely  | 31 (93.9%)         | 20 (80%)          | 12 (85.7%)        | 10 (100%)         | 18 (100%)          | 27 (90%)           | 22 (91.7%)         | 140           |  |
| [2] Moderately Unlikely  | 1 (3.0%)           | 1 (4.0%)          | 2 (14.3%)         | 0 (0%)            | 0 (0%)             | 1 (3.3%)           | 1 (4.2%)           | 6             |  |
| [3] Slightly Unlikely  | 0 (0%)             | 2 (8.0%)          | 0 (0%)            | 0 (0%)            | 0 (0%)             | 0 (0%)             | 0 (0%)             | 2             |  |
| [4] Slightly Likely  | 1 (3.0%)           | 1 (4.0%)          | 0 (0%)            | 0 (0%)            | 0 (0%)             | 0 (0%)             | 1 (4.2%)           | 3             |  |
| [5] Moderately Likely  | 0 (0%)             | 1 (4.0%)          | 0 (0%)            | 0 (0%)            | 0 (0%)             | 1 (3.3%)           | 0 (0%)             | 2             |  |
| [6] Very Likely  | 0 (0%)             | 0 (0%)            | 0 (0%)            | 0 (0%)            | 0 (0%)             | 1 (3.3%)           | 0 (0%)             | 1             |  |
| Total  | 33 (21.4%) [1.121] | 25 (16.2%) [1.48] | 14 (9.1%) [1.143] | 10 (6.5%) [1.000] | 18 (11.7%) [1.000] | 30 (19.5%) [1.333] | 24 (15.6%) [1.167] | 154 [1.208]   |  |

***Significant Other Status Cross Tabulations for Propensity to Leave the Teaching Profession.*** Cross tabulations for teacher propensity to leave the teaching profession with respect to significant other status were calculated. Teachers with a significant other living in the village reported a mean score of 1.282. Teachers without a significant other living in the village reported a mean score of 1.133 (see Table 30 (RQ4-D18)).

***Grade Level Taught Cross Tabulations for Propensity To Leave the Teaching Profession.*** Cross tabulations for teacher propensity to leave the teaching profession with respect to grade level taught were calculated. Elementary teachers reported a mean score of 1.141, secondary teachers reported a mean score of 1.417, and teachers working in both the elementary and secondary reported a mean score of 1.206 (see Table 31 (RQ4-D19)).

Table 30

*RQ4-D18: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Significant Other Status)*

| <b>RQ4-D18: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Significant Other Status)</b> |                     |   |  |               |
|---|---------------------|---|--|---------------|
|   |                     | Significant Other Living in Village (%) [X] | No Significant Other Living in the Village (%) [X] | Total (%) [X] |
| [1]   | Very Unlikely       | 67 (85.9%)                                  | 72 (96.0%)   | 139 (90.8%)   |
| [2]   | Moderately Unlikely | 5 (6.4%)                                    | 1 (1.3%)   | 6 (3.9%)      |
| [3]   | Slightly Unlikely   | 2 (2.6%)                                    | 0 (0%)   | 2 (1.3%)      |
| [4]   | Slightly Likely     | 3 (3.8%)                                    | 0 (0%)   | 3 (2.0%)      |
| [5]   | Moderately Likely   | 1 (1.3%)                                    | 1 (1.3%)   | 2 (1.3%)      |
| [6]   | Very Likely         | 0 (0%)                                      | 1 (1.3%)   | 1 (0.7%)      |
| Total   |                     | 78 (51.0%) [1.282]                          | 75 (49.0%) [1.133]                                 | 153 [1.209]   |

Table 31

*RQ4-D19: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Grade Level Taught)*

| <b>RQ4-D19: Descriptive Statistics for Teacher Propensity to Leave the Teaching Profession (Grade Level Taught)</b> |                     |                    |                    |                    |               |
|---|---------------------|--------------------|--------------------|--------------------|---------------|
|   |                     | Elementary (%) [X] | Secondary (%) [X]  | Both (%) [X]       | Total (%) [X] |
| [1]   | Very Unlikely       | 73 (93.6%)         | 40 (83.3%)         | 28 (96.6%)         | 141 (91.0%)   |
| [2]   | Moderately Unlikely | 2 (2.6%)           | 3 (6.3%)           | 1 (3.4%)           | 6 (3.9%)      |
| [3]   | Slightly Unlikely   | 1 (1.3%)           | 1 (2.1%)           | 0 (0%)             | 2 (1.3%)      |
| [4]   | Slightly Likely     | 1 (1.3%)           | 2 (4.2%)           | 0 (0%)             | 3 (1.9%)      |
| [5]   | Moderately Likely   | 1 (1.3%)           | 1 (2.1%)           | 0 (0%)             | 2 (1.3%)      |
| [6]   | Very Likely         | 0 (0%)             | 1 (2.1%)           | 0 (0%)             | 1 (0.6%)      |
| Total   |                     | 78 (50.3%) [1.141] | 48 (31.0%) [1.417] | 29 (18.7%) [1.034] | 155 [1.206]   |

**Research Question 5 (RQ5).** With respect to teacher demographic factors, do each of the following three factors - motivator factors, hygiene factors, and rural Alaska job factors - predict teacher reported overall job satisfaction/dissatisfaction in the Bering Strait School District?

Motivator factors (questionnaire items 1, 3, 5, 12, 13, 18), hygiene factors (questionnaire items 2, 4, 6, 7, 8, 10, 11, 14, 15, 16, 17), rural Alaska job factors (questionnaire items 19-21), teacher demographic factors (questionnaire items 27-32), and teacher reported overall job satisfaction (questionnaire item 22) were regressed to determine the extent to which each of these factors predict teacher overall job satisfaction. Due to the number of variables, three separate sequential multiple regression analyses were utilized (RQ4-R1, RQ4-R2, RQ4-R3) to answer the three sub-questions of RQ4.

***RQ5-Subquestion 1 (RQ5-SQ1).*** Do motivator factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.

To answer RQ5-SQ1, sequential multiple regression analysis (RQ5-R1) was utilized. Teacher overall job satisfaction served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) representing the first sequential independent variables used in model one, and motivator factors (advancement, responsibility, the work itself, growth, achievement, recognition) were the independent variables added in model two of the sequential multiple regression.

In RQ5-R1, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable overall teacher job satisfaction. A weak positive linear relationship between teacher demographic variables and the dependent variable teacher overall job satisfaction was found ( $R = .269$ ;  $R \text{ square} = .072$ ). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable overall job satisfaction were age ( $B = .104$ ;  $\beta = .189$ ) and gender

( $B = -.355$ ;  $\beta = .169$ ) with greater age and femaleness more correlated with greater overall job satisfaction (see Table 32).

Table 32

*RQ5-R1: Sequential Multiple Regression for Overall Job Satisfaction (Motivator Factors)*

| <b>RQ5-R1: Sequential Multiple Regression for Overall Job Satisfaction (Motivator Factors)</b> |          |                 |                      |            |                        |                 |             |             |                      |
|--|----------|-----------------|----------------------|------------|------------------------|-----------------|-------------|-------------|----------------------|
|  | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | <i>SEE</i> | <i>r</i> square change | <i>f</i> change | <i>df</i> 1 | <i>df</i> 2 | Sig. <i>f</i> change |
| *Model 1   | 0.269    | 0.072           | 0.041                | 0.982      | 0.072                  | 2.317           | 5           | 149         | 0.046*               |
| *Model 2   | 0.828    | 0.686           | 0.662                | 0.583      | 0.614                  | 46.532          | 6           | 143         | 0.000*               |
| <b>Model 1 - Predictors</b>  |          |                 |                      |            |                        |                 |             |             |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i>   | <i>p</i>               |                 |             |             |                      |
| *Gender (Q27)  | -0.355   | 0.166           | 0.169                | 2.145      | 0.034*                 |                 |             |             |                      |
| *Age (Q28)   | 0.104    | 0.047           | 0.189                | 2.223      | 0.028*                 |                 |             |             |                      |
| Educational Level Attained (Q29)   | 0.063    | 0.165           | 0.031                | 0.384      | 0.701                  |                 |             |             |                      |
| Years in the School District (Q30)   | 0.014    | 0.038           | 0.032                | 0.381      | 0.704                  |                 |             |             |                      |
| Significant Other Status (Q31)   | 0.005    | 0.171           | 0.002                | 0.029      | 0.977                  |                 |             |             |                      |
| <b>Model 2 - Predictors</b>  |          |                 |                      |            |                        |                 |             |             |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i>   | <i>p</i>               |                 |             |             |                      |
| Gender (Q27)   | -0.206   | 0.106           | 0.098                | 1.938      | 0.055                  |                 |             |             |                      |
| Age (Q28)  | 0.012    | 0.029           | 0.022                | 0.424      | 0.672                  |                 |             |             |                      |
| Educational Level Attained (Q29)   | -0.022   | 0.100           | -0.011               | -0.224     | 0.823                  |                 |             |             |                      |
| *Years in the School District (Q30)  | 0.057    | 0.023           | 0.128                | 2.492      | 0.014*                 |                 |             |             |                      |
| Significant Other Status (Q31)   | -0.028   | 0.105           | -0.014               | -0.270     | 0.788                  |                 |             |             |                      |
| *Achievement (Q1)  | 0.168    | 0.077           | 0.149                | 2.193      | 0.030*                 |                 |             |             |                      |
| Advancement (Q3)   | 0.116    | 0.063           | 0.114                | 1.830      | 0.069                  |                 |             |             |                      |
| *Growth (Q5)   | 0.152    | 0.060           | 0.161                | 2.540      | 0.012*                 |                 |             |             |                      |
| *Recognition (Q12)   | 0.099    | 0.050           | 0.136                | 1.992      | 0.048*                 |                 |             |             |                      |
| *Responsibility (Q13)  | 0.227    | 0.063           | 0.251                | 3.604      | 0.00*                  |                 |             |             |                      |
| *The Work Itself (Q18)   | 0.305    | 0.076           | 0.254                | 4.039      | 0.00*                  |                 |             |             |                      |
| *indicates significance  |          |                 |                      |            |                        |                 |             |             |                      |

In RQ5-R1, model 2, when motivator variables were added to demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable overall teacher job satisfaction. A

strong positive linear relationship between the variables and the dependent variable teacher overall job satisfaction was found ( $R = .828$ ;  $R$  square = .686). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable overall job satisfaction were the work itself ( $B = .305$ ;  $\beta = .254$ ), responsibility ( $B = .227$ ;  $\beta = .251$ ), growth ( $B = .152$ ;  $\beta = .161$ ), achievement ( $B = .168$ ;  $\beta = .149$ ), recognition ( $B = .099$ ;  $\beta = .136$ ), and years in the school district ( $B = .057$ ;  $\beta = .128$ ) (see Table 32 (RQ5-R1)).

***RQ5-subquestion 2 (RQ5-SQ2).*** Do hygiene factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.

To answer RQ5-SQ2, sequential multiple regression (RQ5-R2) was utilized. Teacher overall job satisfaction served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables entered in model one, and hygiene factors (district level administrative policies and practices, benefits, interpersonal relations with colleagues, interpersonal relations with parents/guardians, interpersonal relations with students, job security, job impact on personal life, salary, school level administration and supervision, status, working conditions) were the independent variables added in model two of the sequential multiple regression.

In RQ5-R2, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable overall teacher job satisfaction. A weak positive linear relationship between teacher demographic variables and the dependent variable teacher overall job satisfaction was found ( $R = .286$ ;

$R$  square = .082). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable overall job satisfaction were age ( $B = .115$ ;  $\beta = .209$ ), and gender ( $B = -.386$ ;  $\beta = .183$ ) with greater age and femaleness more correlated with overall job satisfaction (see Table 33).

Table 33

*RQ5-R2: Sequential Multiple Regression for Overall Job Satisfaction (Hygiene Factors)*

| RQ5-R2: Sequential Multiple Regression for Overall Job Satisfaction (Hygiene Factors) |        |            |                 |        |                   |            |     |     |                 |
|---|--------|------------|-----------------|--------|-------------------|------------|-----|-----|-----------------|
|   | $r$    | $r$ square | adj. $r$ square | SEE    | $r$ square change | $f$ change | df1 | df2 | sig. $f$ change |
| *Model 1  | 0.286  | 0.082      | 0.050           | 0.986  | 0.082             | 2.565      | 5   | 144 | 0.03*           |
| *Model 2  | 0.848  | 0.718      | 0.685           | 0.568  | 0.637             | 27.335     | 11  | 133 | 0.000*          |
| <b>Model 1 - Predictors</b>   |        |            |                 |        |                   |            |     |     |                 |
|   | $B$    | $SE B$     | $\beta$         | $t$    | $p$               |            |     |     |                 |
| *Gender (Q27)   | -0.386 | 0.169      | 0.183           | 2.286  | 0.024*            |            |     |     |                 |
| *Age (Q28)  | 0.115  | 0.048      | 0.209           | 2.404  | 0.017*            |            |     |     |                 |
| Educational Level Attained (Q29)  | 0.014  | 0.169      | 0.007           | 0.085  | 0.932             |            |     |     |                 |
| Years in the School District (Q30)  | 0.022  | 0.039      | 0.049           | 0.577  | 0.565             |            |     |     |                 |
| Significant Other Status (Q31)  | -0.012 | 1.760      | -0.006          | -0.069 | 0.945             |            |     |     |                 |
| <b>Model 2 - Predictors</b>   |        |            |                 |        |                   |            |     |     |                 |
|   | $B$    | $SE B$     | $\beta$         | $t$    | $p$               |            |     |     |                 |
| Gender (Q27)  | -0.143 | 0.109      | 0.068           | 1.309  | 0.193             |            |     |     |                 |
| Age (Q28)   | -0.006 | 0.030      | -0.011          | -0.205 | 0.838             |            |     |     |                 |
| Educational Level Attained (Q29)  | 0.061  | 0.101      | 0.030           | 0.604  | 0.547             |            |     |     |                 |
| Years in the School District (Q30)  | 0.007  | 0.023      | 0.015           | 0.298  | 0.766             |            |     |     |                 |
| Significant Other Status (Q31)  | 0.055  | 0.105      | 0.027           | 0.522  | 0.602             |            |     |     |                 |
| *District Level Administrative Policies and Practices (Q2)                            | 0.216  | 0.057      | 0.266           | 3.804  | 0.000*            |            |     |     |                 |
| Benefits (Q4)   | 0.111  | 0.057      | 0.116           | 1.958  | 0.052             |            |     |     |                 |
| Interpersonal Relations with Colleagues (Q6)  | 0.052  | 0.049      | 0.060           | 1.068  | 0.288             |            |     |     |                 |
| Interpersonal Relations with Parents/Guardians (Q7)                                   | 0.066  | 0.058      | 0.068           | 1.152  | 0.251             |            |     |     |                 |
| *Interpersonal Relations with Students (Q8)   | 0.150  | 0.065      | 0.126           | 2.327  | 0.021*            |            |     |     |                 |
| Job Security (Q10)  | 0.000  | 0.066      | 0.000           | -0.005 | 0.996             |            |     |     |                 |
| *Job Impact on Personal Life (Q11)  | 0.147  | 0.046      | 0.199           | 3.202  | 0.002*            |            |     |     |                 |
| Salary (Q14)  | 0.077  | 0.071      | 0.063           | 1.085  | 0.280             |            |     |     |                 |
| School Level Administration and Supervision (Q15)                                     | 0.080  | 0.043      | 0.116           | 1.834  | 0.069             |            |     |     |                 |
| *Status (Q16)   | 0.179  | 0.057      | 0.189           | 3.147  | 0.002*            |            |     |     |                 |
| Working Conditions (Q17)  | 0.077  | 0.052      | 0.093           | 1.492  | 0.138             |            |     |     |                 |
| *indicates significance   |        |            |                 |        |                   |            |     |     |                 |

In RQ5-R2, model 2, when hygiene variables were added to demographic variables in the regression model, the variables were jointly found to have a significant

correlation ( $p \leq .05$ ) with the dependent variable overall teacher job satisfaction. A strong positive linear relationship between the independent variables and the dependent variable teacher overall job satisfaction was found ( $R = .848$ ;  $R$  square = .718). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable overall job satisfaction were district level policies and practices ( $B = .216$ ;  $\beta = .266$ ), status ( $B = .179$ ;  $\beta = .189$ ), interpersonal relations with students ( $B = .150$ ;  $\beta = .126$ ), and job impact on personal life ( $B = .066$ ;  $\beta = .068$ ) (see Table 33 (RQ5-R2)).

***RQ5-Subquestion 3 (RQ5-SQ3).*** Do rural Alaska job factors predict teacher reported overall job satisfaction/dissatisfaction with respect to teacher demographic variables.

To answer RQ5-SQ3, sequential multiple regression (RQ5-R3) was utilized. Teacher overall job satisfaction served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables used in model one, and rural Alaska job factors (teacher housing, village amenities, village connectedness) were the independent variables added in model two of the sequential multiple regression.

In RQ5-R3, model 1, the teacher demographic variables were not jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable overall teacher job satisfaction. Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable overall job satisfaction were age ( $B = .102$ ;  $\beta = .187$ ) and gender ( $B = -.371$ ;  $\beta = .175$ ) with greater age and femaleness more correlated with overall job satisfaction (see Table 34).

Table 34

*RQ5-R3: Sequential Multiple Regression for Overall Job Satisfaction (Rural Alaska Factors)*

| <b>RQ5-R3: Sequential Multiple Regression for Overall Job Satisfaction (Rural Alaska Factors)</b> |          |                 |                      |            |                        |                 |            |            |                      |
|---|----------|-----------------|----------------------|------------|------------------------|-----------------|------------|------------|----------------------|
|   | <i>r</i> | <i>r square</i> | <i>adj. r square</i> | <i>SEE</i> | <i>r square change</i> | <i>F change</i> | <i>df1</i> | <i>df2</i> | <i>sig. f change</i> |
| Model 1   | 0.269    | 0.072           | 0.40                 | 0.990      | 0.072                  | 2.259           | 5          | 145        | 0.052                |
| *Model 2  | 0.624    | 0.389           | 0.354                | 0.813      | 0.317                  | 24.513          | 3          | 142        | 0.000*               |
| <b>Model 1 - Predictors</b>   |          |                 |                      |            |                        |                 |            |            |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i>   | <i>p</i>               |                 |            |            |                      |
| *Gender (Q27)   | -0.371   | 0.170           | 0.175                | 2.183      | 0.031*                 |                 |            |            |                      |
| *Age (Q28)  | 0.102    | 0.047           | 0.187                | 2.166      | 0.032*                 |                 |            |            |                      |
| Educational Level Attained (Q29)  | 0.054    | 0.168           | 0.027                | 0.323      | 0.747                  |                 |            |            |                      |
| Years in the School District (Q30)  | 0.01     | 0.039           | 0.023                | 0.270      | 0.788                  |                 |            |            |                      |
| Significant Other Status (Q31)  | -0.008   | 0.176           | -0.004               | -0.048     | 0.962                  |                 |            |            |                      |
| <b>Model 2 - Predictors</b>   |          |                 |                      |            |                        |                 |            |            |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i>   | <i>p</i>               |                 |            |            |                      |
| Gender (Q27)  | -0.238   | 0.141           | 0.112                | 1.688      | 0.094                  |                 |            |            |                      |
| *Age (Q28)  | 0.12     | 0.039           | 0.187                | 2.624      | 0.010*                 |                 |            |            |                      |
| Educational Level Attained (Q29)  | 0.058    | 0.138           | 0.028                | 0.419      | 0.676                  |                 |            |            |                      |
| Years in the School District (Q30)  | -0.020   | 0.032           | -0.044               | -0.613     | 0.541                  |                 |            |            |                      |
| Significant Other Status (Q31)  | -0.132   | 0.145           | -0.065               | -0.91      | 0.364                  |                 |            |            |                      |
| *Teacher Housing (Q19)  | 0.187    | 0.053           | 0.273                | 3.551      | 0.001*                 |                 |            |            |                      |
| Village Amenities (Q20)   | 0.113    | 0.061           | 0.150                | 1.832      | 0.069                  |                 |            |            |                      |
| *Village Connectedness (Q21)  | 0.260    | 0.064           | 0.308                | 4.089      | 0.000*                 |                 |            |            |                      |
| *indicates significance   |          |                 |                      |            |                        |                 |            |            |                      |

In RQ5-R3, model 2, when rural Alaska job variables were added to the demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable overall teacher job satisfaction. A moderately strong positive linear relationship between the independent variables and the dependent variable teacher overall job satisfaction was found ( $R = .624$ ;  $R^2 = .38$ ). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable overall job satisfaction were satisfaction with village connectedness ( $B = .260$ ;  $\beta = .308$ ) and teacher housing ( $B = .187$ ;  $\beta = .273$ ), as well as age ( $B = .102$ ;  $\beta = .187$ ) (see Table 34 (RQ5-R3)).



**Research Question 6 (RQ6).** With respect to teacher demographic factors, do each of the following four factors: motivator factors, hygiene factors, rural Alaska job factors, and teacher reported overall job satisfaction/dissatisfaction - predict teacher reported propensity to leave with respect to each of three leaving outcomes: leaving the school, leaving the school district, and leaving the teaching profession?

Motivator factors (questionnaire items: 1, 3, 5, 12, 13, 18), hygiene factors (questionnaire items: 2, 4, 6, 7, 8, 10, 11, 14, 15, 16, 17), rural Alaska job factors (questionnaire items 19-21), teacher demographic factors (questionnaire items 27-32), and teacher reported overall job satisfaction (questionnaire item 22) were regressed to determine the extent to which these factors predict teacher propensity to leave their school, school district, and the teaching profession. Due to the number of variables, twelve separate sequential multiple regression analyses were utilized (RQ6/R1 - RQ6/R12) to answer the twelve sub-questions for RQ6:

***RQ6-Subquestion 1 (RQ6-SQ1).*** Do motivator factors predict teacher reported propensity to leave the school?

To answer RQ6-SQ1, sequential multiple regression (RQ6-R1) was utilized. Teacher propensity to leave the school served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) representing the first sequential independent variables used in model one, and motivator factors (advancement, responsibility, the work itself, growth, achievement, recognition) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R1, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school. A weak positive linear relationship between teacher demographic variables and the dependent variable teacher propensity to leave the school was found ( $R = .307$ ;  $R$  square = .094). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school was significant other status ( $B = -1.047$ ;  $\beta = -.267$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school (see Table 35 (RQ6-R1)).

In RQ6-R1, model 2, when motivator variables were added to demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable propensity to leave the school. A moderate positive linear relationship between the variables and the dependent variable propensity to leave the school was found ( $R = .529$ ;  $R$  square = .280). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school were significant other status ( $B = -.903$ ;  $\beta = -.230$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school, and satisfaction with the work itself ( $B = -.537$ ;  $\beta = -.227$ ), and growth ( $B = -.385$ ;  $\beta = -.213$ ) (see Table 35 (RQ6-R1)).

Table 35

*RQ 6-R1: Sequential Multiple Regression for Propensity to Leave the School (Motivator Factors)*

| <b>RQ6-R1: Sequential Multiple Regression for Propensity to Leave the School (Motivator Factors)</b> |          |                 |                      |          |                        |                 |     |     |                      |
|--|----------|-----------------|----------------------|----------|------------------------|-----------------|-----|-----|----------------------|
|  | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | <i>f</i> change | df1 | df2 | Sig. <i>f</i> change |
| *Model 1   | 0.307    | 0.094           | 0.062                | 1.904    | 0.094                  | 2.917           | 5   | 140 | 0.015*               |
| *Model 2   | 0.529    | 0.280           | 0.220                | 1.736    | 0.185                  | 5.744           | 6   | 134 | .000*                |
| <b>Model 1 - Predictors</b>  |          |                 |                      |          |                        |                 |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |     |     |                      |
| Gender (Q27)   | 0.204    | 0.330           | -0.050               | -0.617   | 0.538                  |                 |     |     |                      |
| Age (Q28)  | -0.147   | 0.097           | -0.134               | -1.520   | 0.131                  |                 |     |     |                      |
| Educational Level Attained (Q29)   | -0.191   | 0.337           | -0.048               | -0.565   | 0.573                  |                 |     |     |                      |
| Years in the School District (Q30)   | -0.044   | 0.075           | -0.050               | -0.581   | 0.562                  |                 |     |     |                      |
| *Significant Other Status (Q31)  | -1.047   | 0.346           | -0.267               | -3.026   | 0.003*                 |                 |     |     |                      |
| <b>Model 2 - Predictors</b>  |          |                 |                      |          |                        |                 |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |     |     |                      |
| Gender (Q27)   | -0.221   | 0.326           | 0.054                | 0.677    | 0.499                  |                 |     |     |                      |
| Age (Q28)  | -0.038   | 0.092           | -0.034               | -0.410   | 0.682                  |                 |     |     |                      |
| Educational Level Attained (Q29)   | -0.255   | 0.311           | -0.064               | -0.820   | 0.414                  |                 |     |     |                      |
| Years in the School District (Q30)   | -0.067   | 0.071           | -0.077               | -0.95    | 0.344                  |                 |     |     |                      |
| *Significant Other Status (Q31)  | -0.903   | 0.327           | -0.230               | -2.763   | 0.007*                 |                 |     |     |                      |
| Achievement (Q1)   | -0.155   | 0.235           | -0.070               | -0.659   | 0.511                  |                 |     |     |                      |
| Advancement (Q3)   | -0.166   | 0.195           | -0.082               | -0.853   | 0.395                  |                 |     |     |                      |
| *Growth (Q5)   | -0.385   | 0.181           | -0.208               | -2.133   | 0.035*                 |                 |     |     |                      |
| Recognition (Q12)  | 0.181    | 0.152           | 0.126                | 1.191    | 0.236                  |                 |     |     |                      |
| Responsibility (Q13)   | -0.106   | 0.187           | -0.063               | -0.567   | 0.572                  |                 |     |     |                      |
| *The Work Itself (Q18)   | -0.537   | 0.235           | -0.227               | -2.288   | 0.024*                 |                 |     |     |                      |
| *indicates significance  |          |                 |                      |          |                        |                 |     |     |                      |

***RQ6-Subquestion 2 (RQ6-SQ2).*** Do hygiene factors predict teacher reported propensity to leave the school?

To answer RQ6-SQ2, sequential multiple regression (RQ6-R2) was utilized. Teacher propensity to leave the school served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables

entered in model one, and hygiene factors (district level administrative policies and practices, benefits, interpersonal relations with colleagues, interpersonal relations with parents/guardians, interpersonal relations with students, job security, job impact on personal life, salary, school level administration and supervision, status, working conditions) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R2, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school. A weak positive linear relationship between teacher demographic variables and the dependent variable teacher propensity to leave the school district was found ( $R = .296$ ;  $R$  square = .088). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district was significant other status ( $B = -1.091$ .;  $\beta = -.278$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school (see Table 36 (RQ6-R2)).

In RQ6-R2, model 2, when hygiene variables were added to demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district. A moderate positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .539$ ;  $R$  square = .291). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable overall job satisfaction were significant other status ( $B = -1.164$ .;  $\beta = -.297$ ) with having a significant other in the village negatively

Table 36

*RQ 6-R2: Sequential Multiple Regression for Propensity to Leave the School (Hygiene Factors)*

| RQ6-R2: Sequential Multiple Regression for Propensity to Leave the School (Hygiene Factors) |          |                 |                      |          |                        |                 |     |     |                      |
|---|----------|-----------------|----------------------|----------|------------------------|-----------------|-----|-----|----------------------|
|   | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | <i>f</i> change | df1 | df2 | sig. <i>f</i> change |
| *Model 1  | 0.296    | 0.088           | 0.054                | 1.910    | 0.088                  | 2.616           | 5   | 136 | 0.027*               |
| *Model 2  | 0.539    | 0.291           | 0.200                | 1.757    | 0.203                  | 3.259           | 11  | 125 | 0.001*               |
| <b>Model 1 - Predictors</b>   |          |                 |                      |          |                        |                 |     |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |     |     |                      |
| Gender (Q27)  | 0.147    | 0.336           | -0.036               | -0.436   | 0.663                  |                 |     |     |                      |
| Age (Q28)   | -0.137   | 0.099           | -0.125               | -1.382   | 0.169                  |                 |     |     |                      |
| Educational Level Attained (Q29)  | -0.126   | 0.341           | -0.032               | -0.368   | 0.713                  |                 |     |     |                      |
| Years in the School District (Q30)  | -0.03    | 0.077           | -0.034               | -0.394   | 0.694                  |                 |     |     |                      |
| *Significant Other Status (Q31)   | -1.091   | 0.356           | -0.278               | -3.066   | 0.003*                 |                 |     |     |                      |
| <b>Model 2 - Predictors</b>   |          |                 |                      |          |                        |                 |     |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |     |     |                      |
| Gender (Q27)  | -0.142   | 0.350           | 0.035                | 0.405    | 0.686                  |                 |     |     |                      |
| Age (Q28)   | -0.009   | 0.099           | -0.008               | -0.088   | 0.930                  |                 |     |     |                      |
| Educational Level Attained (Q29)  | -0.229   | 0.325           | -0.058               | -0.703   | 0.483                  |                 |     |     |                      |
| Years in the School District (Q30)  | -0.023   | 0.074           | -0.027               | -0.319   | 0.751                  |                 |     |     |                      |
| *Significant Other Status (Q31)   | -1.164   | 0.341           | -0.297               | -3.413   | 0.001*                 |                 |     |     |                      |
| *District Level Administrative Policies and Practices (Q2)                                  | -0.381   | 0.180           | -0.247               | -2.120   | 0.036*                 |                 |     |     |                      |
| Benefits (Q4)   | -0.107   | 0.181           | -0.058               | 0.558    | 0.592                  |                 |     |     |                      |
| Interpersonal Relations with Colleagues (Q6)  | -0.231   | 0.156           | -0.138               | -1.482   | 0.141                  |                 |     |     |                      |
| Interpersonal Relations with Parents/Guardians (Q7)   | -0.137   | 0.185           | -0.073               | -0.743   | 0.459                  |                 |     |     |                      |
| Interpersonal Relations with Students (Q8)  | -0.172   | 0.202           | -0.076               | -0.848   | 0.398                  |                 |     |     |                      |
| Job Security (Q10)  | -0.026   | 0.203           | -0.011               | -0.130   | 0.897                  |                 |     |     |                      |
| Job Impact on Personal Life (Q11)   | -0.274   | 0.147           | -0.191               | -1.857   | 0.066                  |                 |     |     |                      |
| Salary (Q14)  | 0.342    | 0.229           | 0.146                | 1.494    | 0.138                  |                 |     |     |                      |
| School Level Administration and Supervision (Q15)   | -0.093   | 0.137           | -0.071               | -0.681   | 0.497                  |                 |     |     |                      |
| Status (Q16)  | 0.194    | 0.179           | 0.107                | 1.084    | 0.280                  |                 |     |     |                      |
| Working Conditions (Q17)  | 0.077    | 0.159           | 0.049                | 0.482    | 0.631                  |                 |     |     |                      |
| *indicates significance   |          |                 |                      |          |                        |                 |     |     |                      |

correlated with teacher propensity to leave the school district, and satisfaction with district level administrative policies and practices ( $B = -.381$ ;  $\beta = -.247$ ) (see Table 36 (RQ6-R2)).

***RQ6-Subquestion 3 (RQ6-SQ3).*** Do rural Alaska job factors predict teacher reported propensity to leave the school?

To answer RQ6-SQ3, sequential multiple regression (RQ6-R3) was utilized. Teacher propensity to leave the school served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables used in model one, and rural Alaska job factors (teacher housing, village amenities, village connectedness) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R3, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave their school. A weak positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .312$ ;  $R$  square = .098). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave their school was significant other status ( $B = -1.129$ ;  $\beta = -.285$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school (see Table 37 (RQ6-R3)).

In RQ6-R3, model 2, when rural Alaska job variables were added to the demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school. A moderate positive linear relationship between the independent variables

Table 37

*RQ 6-R3: Sequential Multiple Regression for Propensity to Leave the School (Rural Alaska Factors)*

| RQ6-R3: Sequential Multiple Regression for Propensity to Leave the School (Rural Alaska Factors) |          |                 |                      |          |                        |          |     |     |                      |
|--|----------|-----------------|----------------------|----------|------------------------|----------|-----|-----|----------------------|
|  | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | F change | df1 | df2 | sig. <i>f</i> change |
| *Model 1   | 0.312    | 0.098           | 0.064                | 1.925    | 0.098                  | 2.939    | 5   | 136 | 0.015*               |
| *Model 2   | 0.500    | 0.250           | 0.205                | 1.774    | 0.152                  | 9.008    | 3   | 133 | 0.000*               |
| <b>Model 1 - Predictors</b>  |          |                 |                      |          |                        |          |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)   | 0.192    | 0.340           | -0.046               | -0.564   | 0.573                  |          |     |     |                      |
| Age (Q28)  | -0.151   | 0.098           | -0.137               | -1.538   | 0.126                  |          |     |     |                      |
| Educational Level Attained (Q29)   | -0.155   | 0.343           | -0.039               | -0.452   | 0.652                  |          |     |     |                      |
| Years in the School District (Q30)   | -0.028   | 0.078           | -0.032               | -0.362   | 0.718                  |          |     |     |                      |
| *Significant Other Status (Q31)  | -1.129   | 0.357           | -0.285               | -3.164   | 0.002*                 |          |     |     |                      |
| <b>Model 2 - Predictors</b>  |          |                 |                      |          |                        |          |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)   | -0.019   | 0.317           | 0.005                | 0.061    | 0.951                  |          |     |     |                      |
| Age (Q28)  | -0.164   | 0.091           | -0.150               | -1.802   | 0.074                  |          |     |     |                      |
| Educational Level Attained (Q29)   | -0.113   | 0.316           | -0.028               | -0.357   | 0.722                  |          |     |     |                      |
| Years in the School District (Q30)   | -0.014   | 0.072           | -0.016               | -0.198   | 0.844                  |          |     |     |                      |
| *Significant Other Status (Q31)  | -0.913   | 0.332           | -0.230               | -2.750   | 0.007*                 |          |     |     |                      |
| Teacher Housing (Q19)  | -0.122   | 0.115           | -0.094               | -1.053   | 0.294                  |          |     |     |                      |
| Village Amenities (Q20)  | -0.082   | 0.137           | -0.057               | -0.604   | 0.547                  |          |     |     |                      |
| *Village Connectedness (Q21)   | -0.535   | 0.142           | -0.324               | -3.759   | 0.000*                 |          |     |     |                      |
| *indicates significance  |          |                 |                      |          |                        |          |     |     |                      |

and the dependent variable teacher propensity to leave the school was found ( $R = .500$ ;  $R$  square = .250). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school were significant other status ( $B = -.913$ ;  $\beta = -.230$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school, and satisfaction with village connectedness ( $B = -.535$ ;  $\beta = -.324$ ) (see Table 37 (RQ6-R3)).

***RQ6-Subquestion 4 (RQ6-SQ4).*** Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the school?

To answer RQ6-SQ4, sequential multiple regression (RQ6-R4) was utilized. Teacher propensity to leave the school served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables used in model one, and overall job satisfaction was the independent variables added in model two of the sequential multiple regression.

In RQ6-R4, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave their school. A weak positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .291$ ;  $R$  square = .051). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave their school was significant other status ( $B = -1.012$ ;  $\beta = -.260$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school (see Table 38 (RQ6-R4)).

In RQ6-R4, model 2, when teacher-reported overall job satisfaction was added to the demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school. A moderate positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school was found



Table 38

*RQ 6-R4: Sequential Multiple Regression for Propensity to Leave the School (Overall Job Satisfaction)*

| <b>RQ6-R4: Sequential Multiple Regression for Propensity to Leave the School (Overall Job Satisfaction)</b> |          |                 |                      |          |                        |          |     |     |                      |
|---|----------|-----------------|----------------------|----------|------------------------|----------|-----|-----|----------------------|
|   | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | F change | df1 | df2 | sig. <i>f</i> change |
| *Model 1  | 0.291    | 0.084           | 0.051                | 1.900    | 0.084                  | 2.545    | 5   | 138 | 0.031                |
| *Model 2  | 0.469    | 0.220           | 0.185                | 1.760    | 0.135                  | 23.737   | 1   | 137 | 0.000                |
| <b>Model 1 - Predictors</b>   |          |                 |                      |          |                        |          |     |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)  | 0.199    | 0.333           | 0.049                | 0.596    | 0.552                  |          |     |     |                      |
| Age (Q28)   | -0.113   | 0.097           | -0.104               | -1.158   | 0.249                  |          |     |     |                      |
| Educational Level Attained (Q29)  | -0.218   | 0.339           | -0.055               | -0.644   | 0.521                  |          |     |     |                      |
| Years in the School District (Q30)  | -0.045   | 0.076           | -0.052               | -0.600   | 0.550                  |          |     |     |                      |
| *Significant Other Status (Q31)   | -1.012   | 0.347           | -0.260               | -2.918   | 0.004*                 |          |     |     |                      |
| <b>Model 2 - Predictors</b>   |          |                 |                      |          |                        |          |     |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)  | -0.097   | 0.315           | -0.024               | -0.308   | 0.759                  |          |     |     |                      |
| Age (Q28)   | -0.022   | 0.092           | -0.020               | -0.239   | 0.811                  |          |     |     |                      |
| Educational Level Attained (Q29)  | -0.229   | 0.314           | -0.058               | -0.730   | 0.467                  |          |     |     |                      |
| Years in the School District (Q30)  | -0.027   | 0.070           | -0.031               | -0.388   | 0.699                  |          |     |     |                      |
| *Significant Other Status (Q31)   | -1.025   | 0.321           | -0.264               | -3.189   | 0.002*                 |          |     |     |                      |
| *Overall Job Satisfaction (Q22)   | -0.738   | 0.151           | -0.385               | -4.872   | 0.000*                 |          |     |     |                      |
| *indicates significance   |          |                 |                      |          |                        |          |     |     |                      |

( $R = .469$ ;  $R$  square = .220). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school were significant other status ( $B = -1.025$ ;  $\beta = -.264$ ) and teacher reported overall job satisfaction ( $B = -.738$ ;  $\beta = -.385$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school (see Table 38 (RQ6-R4)).

***RQ6-Subquestion 5 (RQ6-SQ5).*** Do motivator factors predict teacher reported propensity to leave the school district?

To answer RQ6-SQ5, sequential multiple regression (RQ6-R5) was utilized. Teacher propensity to leave the school district served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) representing the first sequential independent variables used in model one, and motivator factors (advancement, responsibility, the work itself, growth, achievement, recognition) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R5, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district. A weak positive linear relationship between teacher demographic variables and the dependent variable teacher propensity to leave the school district was found ( $R = .296$ ;  $R \text{ square} = .088$ ). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district was significant other status ( $B = -1.005$ ;  $\beta = -.267$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school (see Table 39 (RQ6-R5)).

In RQ6-R5, model 2, when motivator variables were added to demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable propensity to leave the school district. A moderate positive linear relationship between the variables and the dependent variable

Table 39

*RQ 6-R5: Sequential Multiple Regression for Propensity to Leave the School District**(Motivator Factor)*

| <b>RQ6-R5: Sequential Multiple Regression for Propensity to Leave the School District (Motivator Factors)</b> |          |                 |                      |          |                        |                 |       |     |                      |
|---|----------|-----------------|----------------------|----------|------------------------|-----------------|-------|-----|----------------------|
|   | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | <i>f</i> change | df1   | df2 | Sig. <i>f</i> change |
| *Model 1  | 0.296    | 0.088           | 0.054                | 1.836    | 0.088                  | 2.634           | 5     | 137 | 0.026*               |
| *Model 2  | 0.551    | 0.304           | 0.245                | 1.640    | 0.216                  | 6.780           | 6.000 | 131 | 0.000*               |
| <b>Model 1 - Predictors</b>   |          |                 |                      |          |                        |                 |       |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |       |     |                      |
| Gender (Q27)  | 0.099    | 0.321           | -0.025               | -0.308   | 0.758                  |                 |       |     |                      |
| Age (Q28)   | -0.130   | 0.094           | -0.125               | -1.389   | 0.167                  |                 |       |     |                      |
| Educational Level Attained (Q29)  | 0.048    | 0.332           | 0.013                | 0.146    | 0.884                  |                 |       |     |                      |
| Years in the School District (Q30)  | -0.047   | 0.073           | -0.056               | -0.644   | 0.521                  |                 |       |     |                      |
| *Significant Other Status (Q31)   | -1.005   | 0.333           | -0.267               | -3.014   | 0.003*                 |                 |       |     |                      |
| <b>Model 2 - Predictors</b>   |          |                 |                      |          |                        |                 |       |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |       |     |                      |
| Gender (Q27)  | -0.377   | 0.315           | 0.096                | 1.197    | 0.233                  |                 |       |     |                      |
| Age (Q28)   | -0.019   | 0.087           | -0.018               | -0.214   | 0.831                  |                 |       |     |                      |
| Educational Level Attained (Q29)  | 0.011    | 0.301           | 0.003                | 0.036    | 0.971                  |                 |       |     |                      |
| Years in the School District (Q30)  | -0.071   | 0.068           | -0.084               | -1.051   | 0.295                  |                 |       |     |                      |
| *Significant Other Status (Q31)   | -0.846   | 0.308           | -0.225               | -2.746   | 0.007*                 |                 |       |     |                      |
| Achievement (Q1)  | -0.171   | 0.222           | -0.081               | -0.77    | 0.443                  |                 |       |     |                      |
| Advancement (Q3)  | -0.199   | 0.186           | -0.103               | -1.069   | 0.287                  |                 |       |     |                      |
| *Growth (Q5)  | -0.364   | 0.171           | -0.207               | -2.132   | 0.035*                 |                 |       |     |                      |
| Recognition (Q12)   | 0.073    | 0.151           | 0.053                | 0.481    | 0.631                  |                 |       |     |                      |
| Responsibility (Q13)  | 0.009    | 0.183           | 0.005                | 0.048    | 0.962                  |                 |       |     |                      |
| *The Work Itself (Q18)  | -0.583   | 0.224           | -0.259               | -2.604   | 0.010*                 |                 |       |     |                      |
| *indicates significance   |          |                 |                      |          |                        |                 |       |     |                      |

propensity to leave the school district was found ( $R = .551$ ;  $R$  square = .304). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district were significant other status ( $B = -.846$ ;  $\beta = -.225$ ) with having a significant other in the village being negatively correlated with teacher

propensity to leave the school district, satisfaction with the work itself ( $B = -.583$ ;  $\beta = -.259$ ), and growth ( $B = -.364$ ;  $\beta = -.207$ ) (see Table 39 (RQ6-R5)).

**RQ6-subquestion 6 (RQ6-SQ6).** Do hygiene factors predict teacher reported propensity to leave the school district?

To answer RQ6-SQ6, sequential multiple regression (RQ6-R6) was utilized. Teacher propensity to leave the school district served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables entered in model one, and hygiene factors (district level administrative policies and practices, benefits, interpersonal relations with colleagues, interpersonal relations with parents/guardians, interpersonal relations with students, job security, job impact on personal life, salary, school level administration and supervision, status, working conditions) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R6, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school. A weak positive linear relationship between teacher demographic variables and the dependent variable teacher propensity to leave the school district was found ( $R = .293$ ;  $R$  square = .086). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district was significant other status ( $B = -1.059$ ;  $\beta = -.281$ ) with having a significant other in the village negatively correlated with teacher propensity to leave the school district (see Table 40 (RQ6-R6)).

Table 40

*RQ 6-R6: Sequential Multiple Regression for Propensity to Leave the School District**(Hygiene Factors)*

| RQ6-R6: Sequential Multiple Regression for Propensity to Leave the School District (Hygiene Factors) |          |                 |                      |          |                        |                 |     |     |                      |
|--|----------|-----------------|----------------------|----------|------------------------|-----------------|-----|-----|----------------------|
|  | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | <i>f</i> change | df1 | df2 | sig. <i>f</i> change |
| *Model 1   | 0.293    | 0.086           | 0.052                | 1.840    | 0.086                  | 2.512           | 5   | 134 | 0.033*               |
| *Model 2   | 0.520    | 0.270           | 0.175                | 1.716    | 0.184                  | 2.824           | 11  | 123 | 0.003*               |
| <b>Model 1 - Predictors</b>  |          |                 |                      |          |                        |                 |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |     |     |                      |
| Gender (Q27)   | 0.056    | 0.326           | -0.014               | -0.172   | 0.864                  |                 |     |     |                      |
| Age (Q28)  | -0.125   | 0.095           | -0.119               | -1.305   | 0.194                  |                 |     |     |                      |
| Educational Level Attained (Q29)   | 0.102    | 0.334           | 0.027                | 0.307    | 0.760                  |                 |     |     |                      |
| Years in the School District (Q30)   | -0.032   | 0.074           | -0.038               | -0.433   | 0.665                  |                 |     |     |                      |
| *Significant Other Status (Q31)  | -1.059   | 0.342           | -0.281               | -3.098   | 0.002*                 |                 |     |     |                      |
| <b>Model 2 - Predictors</b>  |          |                 |                      |          |                        |                 |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |     |     |                      |
| Gender (Q27)   | -0.213   | 0.345           | 0.054                | 0.617    | 0.538                  |                 |     |     |                      |
| Age (Q28)  | -0.009   | 0.097           | -0.008               | -0.089   | 0.929                  |                 |     |     |                      |
| Educational Level Attained (Q29)   | 0.024    | 0.324           | 0.006                | 0.073    | 0.942                  |                 |     |     |                      |
| Years in the School District (Q30)   | -0.01    | 0.073           | -0.012               | -0.144   | 0.886                  |                 |     |     |                      |
| *Significant Other Status (Q31)  | -1.127   | 0.332           | -0.299               | -3.388   | 0.001*                 |                 |     |     |                      |
| *District Level Administrative Policies and Practices (Q2)   | -0.354   | 0.176           | -0.239               | -2.010   | .047*                  |                 |     |     |                      |
| Benefits (Q4)  | -0.112   | 0.178           | -0.063               | -0.628   | 0.531                  |                 |     |     |                      |
| Interpersonal Relations with Colleagues (Q6)   | -0.272   | 0.153           | -0.169               | -1.783   | 0.077                  |                 |     |     |                      |
| Interpersonal Relations with Parents/Guardians (Q7)  | -0.023   | 0.181           | -0.013               | -0.125   | 0.901                  |                 |     |     |                      |
| Interpersonal Relations with Students (Q8)   | -0.182   | 0.199           | -0.084               | -0.915   | 0.362                  |                 |     |     |                      |
| Job Security (Q10)   | -0.086   | 0.201           | -0.038               | -0.430   | 0.668                  |                 |     |     |                      |
| Job Impact on Personal Life (Q11)  | -0.212   | 0.144           | -0.154               | -1.467   | 0.145                  |                 |     |     |                      |
| Salary (Q14)   | 0.327    | 0.224           | 0.146                | 1.462    | 0.146                  |                 |     |     |                      |
| School Level Administration and Supervision (Q15)  | -0.064   | 0.135           | -0.050               | -0.474   | 0.636                  |                 |     |     |                      |
| Status (Q16)   | 0.124    | 0.175           | 0.071                | 0.708    | 0.480                  |                 |     |     |                      |
| Working Conditions (Q17)   | 0.010    | 0.156           | 0.007                | 0.065    | 0.948                  |                 |     |     |                      |
| *indicates significance  |          |                 |                      |          |                        |                 |     |     |                      |

In RQ6-R6, model 2, when hygiene variables were added to demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district. A moderate positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .520$ ;  $R$  square = .270). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable overall job satisfaction were significant other status

( $B = -1.127$ ;  $\beta = -.299$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school district, and satisfaction with district level administrative policies and practices ( $B = -.354$ ;  $\beta = -.239$ ) (see Table 40 (RQ6-R6)).

***RQ6-Subquestion 7 (RQ6-SQ7).*** Do rural Alaska job factors predict teacher reported propensity to leave the school district?

To answer RQ6-SQ7, sequential multiple regression (RQ6-R7) was utilized. Teacher propensity to leave the school district served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables used in model one, and rural Alaska job factors (teacher housing, village amenities, village connectedness) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R7, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district. A weak positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .303$ ;  $R \text{ square} = .092$ ). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district was significant other status ( $B = -1.085$ ;  $\beta = -.286$ ) with having a significant other negatively correlated with leaving the school district (see Table 41 (RQ6-R7)).

Table 41

*RQ 6-R7: Sequential Multiple Regression for Propensity to Leave the School District**(Rural Alaska Factors)*

| <b>RQ6-R7: Sequential Multiple Regression for Propensity to Leave the School District (Rural Alaska Factors)</b> |          |                 |                      |          |                        |          |     |     |                      |
|--|----------|-----------------|----------------------|----------|------------------------|----------|-----|-----|----------------------|
|  | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | F change | df1 | df2 | sig. <i>f</i> change |
| *Model 1   | 0.303    | 0.092           | 0.058                | 1.848    | 0.092                  | 2.705    | 5   | 134 | 0.023*               |
| *Model 2   | 0.510    | 0.260           | 0.215                | 1.687    | 0.169                  | 9.956    | 3   | 131 | 0.000*               |
| <b>Model 1 - Predictors</b>  |          |                 |                      |          |                        |          |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)   | 0.091    | 0.329           | -0.023               | -0.278   | 0.781                  |          |     |     |                      |
| Age (Q28)  | -0.133   | 0.094           | -0.128               | -1.412   | 0.160                  |          |     |     |                      |
| Educational Level Attained (Q29)   | 0.079    | 0.335           | 0.021                | 0.235    | 0.815                  |          |     |     |                      |
| Years in the School District (Q30)   | -0.030   | 0.075           | -0.035               | -0.400   | 0.69                   |          |     |     |                      |
| *Significant Other Status (Q31)  | -1.085   | 0.342           | -0.286               | -3.173   | 0.002*                 |          |     |     |                      |
| <b>Model 2 - Predictors</b>  |          |                 |                      |          |                        |          |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)   | -0.153   | 0.304           | 0.038                | 0.503    | 0.616                  |          |     |     |                      |
| Age (Q28)  | -0.146   | 0.087           | -0.140               | -1.683   | 0.095                  |          |     |     |                      |
| Educational Level Attained (Q29)   | 0.114    | 0.306           | 0.03                 | 0.373    | 0.710                  |          |     |     |                      |
| Years in the School District (Q30)   | -0.016   | 0.069           | -0.018               | -0.228   | 0.82                   |          |     |     |                      |
| *Significant Other Status (Q31)  | -0.858   | 0.315           | -0.226               | -2.725   | 0.007*                 |          |     |     |                      |
| Teacher Housing (Q19)  | -0.109   | 0.112           | -0.088               | -0.969   | 0.334                  |          |     |     |                      |
| Village Amenities (Q20)  | -0.150   | 0.137           | -0.106               | -1.100   | 0.273                  |          |     |     |                      |
| *Village Connectedness (Q21)   | -0.495   | 0.136           | -0.315               | -3.639   | 0.000*                 |          |     |     |                      |
| *indicates significance  |          |                 |                      |          |                        |          |     |     |                      |

In RQ6-R7, model 2, when rural Alaska job variables were added to the demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district. A moderately strong positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .510$ ;  $R$  square = .260). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district were satisfaction with village connectedness ( $B = -.495$ ;  $\beta = -.315$ ),

and significant other status ( $B = -.858$ ;  $\beta = -.226$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school district (see Table 41 (RQ6-R7)).

***RQ6-Subquestion 8 (RQ6-SQ8).*** Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the school district?

To answer RQ6-SQ8, sequential multiple regression (RQ6-R8) was utilized. Teacher propensity to leave the school district served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables used in model one, and teacher reported overall job satisfaction was the independent variable added in model two of the sequential multiple regression.

In RQ6-R8, model 1, the teacher demographic variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave their school. A weak positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .279$ ;  $R \text{ square} = .078$ ). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district was significant other status ( $B = -.975$ ;  $\beta = -.261$ ) with having a significant other in the village being negatively correlated with teacher propensity to leave the school district (see Table 42 (RQ6-R8)).



Table 42

*RQ 6-R8: Sequential Multiple Regression for Propensity to Leave the School District**(Overall Job Satisfaction)*

| <b>RQ6-R8: Sequential Multiple Regression for Propensity to Leave the School District (Overall Job Satisfaction)</b> |          |                 |                      |          |                        |          |     |     |                      |
|--|----------|-----------------|----------------------|----------|------------------------|----------|-----|-----|----------------------|
|  | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | F change | df1 | df2 | sig. <i>f</i> change |
| *Model 1   | 0.279    | 0.078           | 0.044                | 1.835    | 0.078                  | 2.300    | 5   | 136 | 0.048*               |
| *Model 2   | 0.492    | 0.242           | 0.209                | 1.670    | 0.164                  | 29.293   | 1   | 135 | 0.000*               |
| <b>Model 1 - Predictors</b>  |          |                 |                      |          |                        |          |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)   | 0.069    | 0.323           | 0.018                | 0.213    | 0.832                  |          |     |     |                      |
| Age (Q28)  | -0.111   | 0.094           | -0.107               | -1.184   | 0.239                  |          |     |     |                      |
| Educational Level Attained (Q29)   | 0.054    | 0.331           | 0.014                | 0.163    | 0.871                  |          |     |     |                      |
| Years in the School District (Q30)   | -0.042   | 0.073           | -0.050               | -0.572   | 0.568                  |          |     |     |                      |
| *Significant Other Status (Q31)  | -0.975   | 0.335           | -0.261               | -2.913   | 0.004*                 |          |     |     |                      |
| <b>Model 2 - Predictors</b>  |          |                 |                      |          |                        |          |     |     |                      |
|  | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)   | -0.236   | 0.299           | -0.060               | -0.791   | 0.430                  |          |     |     |                      |
| Age (Q28)  | -0.010   | 0.087           | -0.009               | -0.112   | 0.911                  |          |     |     |                      |
| Educational Level Attained (Q29)   | 0.041    | 0.301           | 0.011                | 0.135    | 0.893                  |          |     |     |                      |
| Years in the School District (Q30)   | -0.024   | 0.067           | -0.028               | -0.358   | 0.721                  |          |     |     |                      |
| *Significant Other Status (Q31)  | -0.986   | 0.305           | -0.263               | -3.237   | 0.002*                 |          |     |     |                      |
| *Overall Job Satisfaction (Q22)  | -0.777   | 0.144           | -0.426               | -5.412   | 0.000*                 |          |     |     |                      |
| *indicates significance  |          |                 |                      |          |                        |          |     |     |                      |

In RQ6-R8, model 2, when teacher reported overall job satisfaction was added to the demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school. A moderate positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .492$ ;  $R$  square = .242). The predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable, teacher propensity to leave the school, were teacher reported overall job satisfaction ( $B = -.777$ ;  $\beta = -.426$ ) and significant other status ( $B = -.986$ ;  $\beta = -.263$ ) with having a significant other in the village being

negatively correlated with teacher propensity to leave the school district (see Table 42 (RQ6-R8)).

***RQ6-subquestion 9 (RQ6-SQ9).*** Do motivator factors predict teacher reported propensity to leave the teaching profession?

To answer RQ6-SQ9, sequential multiple regression (RQ6-R9) was utilized. Teacher propensity to leave the teaching profession served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) representing the first sequential independent variables used in model one, and motivator factors (advancement, responsibility, the work itself, growth, achievement, recognition) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R9, model 1, the teacher demographic variables were not jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession. The predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school were age ( $B = -.081$ ;  $\beta = -.185$ ) and gender ( $B = .271$ ;  $\beta = -.166$ ) with younger age and maleness being correlated with leaving the profession (see Table 43 (RQ6-R9)).

In RQ6-R9, model 2, when motivator variables were added to demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession. A moderate positive linear relationship between the variables and the dependent variable teacher propensity to leave the teaching profession was found

Table 43

*RQ 6-R9: Sequential Multiple Regression for Propensity to Leave the Teaching Profession (Motivator Factors)*

| <b>RQ6-R9: Sequential Multiple Regression for Propensity to Leave the Teaching Profession (Motivator Factors)</b> |          |                 |                      |            |                        |                 |            |            |                      |
|---|----------|-----------------|----------------------|------------|------------------------|-----------------|------------|------------|----------------------|
|   | <i>r</i> | <i>r square</i> | <i>adj. r square</i> | <i>SEE</i> | <i>r square change</i> | <i>f change</i> | <i>df1</i> | <i>df2</i> | <i>sig. f change</i> |
| Model 1   | 0.267    | 0.071           | 0.038                | 0.772      | 0.071                  | 2.160           | 5          | 141        | 0.062                |
| *Model 2  | 0.511    | 0.261           | 0.201                | 0.704      | 0.190                  | 5.777           | 6          | 135        | .000*                |
| <b>Model 1 - Predictors</b>   |          |                 |                      |            |                        |                 |            |            |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i>   | <i>p</i>               |                 |            |            |                      |
| *Gender (Q27)   | 0.271    | 0.133           | -0.166               | -2.039     | 0.043*                 |                 |            |            |                      |
| *Age (Q28)  | -0.081   | 0.039           | -0.185               | -2.087     | 0.039*                 |                 |            |            |                      |
| Educational Level Attained (Q29)  | 0.001    | 0.137           | 0.000                | 0.006      | 0.995                  |                 |            |            |                      |
| Years in the School District (Q30)  | 0.017    | 0.031           | 0.048                | 0.553      | 0.581                  |                 |            |            |                      |
| Significant Other Status (Q31)  | -0.226   | 0.140           | -0.144               | -1.621     | 0.107                  |                 |            |            |                      |
| <b>Model 2 - Predictors</b>   |          |                 |                      |            |                        |                 |            |            |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i>   | <i>p</i>               |                 |            |            |                      |
| Gender (Q27)  | 0.128    | 0.132           | -0.079               | -0.976     | 0.331                  |                 |            |            |                      |
| Age (Q28)   | -0.051   | 0.037           | -0.117               | -1.383     | 0.169                  |                 |            |            |                      |
| Educational Level Attained (Q29)  | 0.024    | 0.126           | 0.015                | 0.192      | 0.848                  |                 |            |            |                      |
| Years in the School District (Q30)  | 0.007    | 0.029           | 0.020                | 0.239      | 0.811                  |                 |            |            |                      |
| Significant Other Status (Q31)  | -0.212   | 0.132           | -0.135               | -1.606     | 0.111                  |                 |            |            |                      |
| *Achievement (Q1)   | -0.258   | 0.095           | -0.289               | -2.716     | 0.007*                 |                 |            |            |                      |
| *Advancement (Q3)   | 0.212    | 0.079           | 0.261                | 2.689      | 0.008*                 |                 |            |            |                      |
| Growth (Q5)   | -0.084   | 0.073           | -0.113               | -1.146     | 0.254                  |                 |            |            |                      |
| Recognition (Q12)   | -0.034   | 0.061           | -0.059               | -0.552     | 0.582                  |                 |            |            |                      |
| Responsibility (Q13)  | -0.013   | 0.076           | -0.020               | -0.176     | 0.861                  |                 |            |            |                      |
| *The Work Itself (Q18)  | -0.204   | 0.095           | -0.215               | -2.152     | 0.033*                 |                 |            |            |                      |
| *indicates significance   |          |                 |                      |            |                        |                 |            |            |                      |

( $R = .511$ ;  $R$  square = .261). Predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school were satisfaction with achievement ( $B = -.258$ ;  $\beta = -.289$ ), advancement ( $B = .212$ ;  $\beta = .261$ ), and the work itself ( $B = -.204$ ;  $\beta = -.215$ ) (see Table 43 (RQ6-R9)).

***RQ6-Subquestion 10 (RQ6-SQ10).*** Do hygiene factors predict teacher reported propensity to leave the teaching profession?

To answer RQ6-SQ10, sequential multiple regression (RQ6-R10) was utilized. Teacher propensity to leave the teaching profession served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables entered in model one, and hygiene factors (district level administrative policies and practices, benefits, interpersonal relations with colleagues, interpersonal relations with parents/guardians, interpersonal relations with students, job security, job impact on personal life, salary, school level administration and supervision, status, working conditions) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R10, model 1, the teacher demographic variables were not jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession. No teacher demographic predictor variables that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession (see Table 44 (RQ6-R10)).

In RQ6-R10, model 2, when hygiene variables were added to demographic variables in the regression model, the variables were not jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession. No individual predictor variables were found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession (see Table 44 (RQ6-R10)).

Table 44

*RQ 6-R10: Sequential Multiple Regression for Propensity to Leave the Teaching Profession (Hygiene Factors)*

| RQ6-R10: Sequential Multiple Regression for Propensity to Leave the Teaching Profession (Hygiene Factors) |          |                 |                      |          |                        |                 |     |     |                      |
|---|----------|-----------------|----------------------|----------|------------------------|-----------------|-----|-----|----------------------|
|   | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | <i>f</i> change | df1 | df2 | sig. <i>f</i> change |
| Model 1   | 0.191    | 0.037           | 0.001                | 0.711    | 0.037                  | 1.039           | 5   | 137 | 0.397                |
| Model 2   | 0.358    | 0.128           | 0.018                | 0.706    | 0.092                  | 1.206           | 11  | 126 | 0.289                |
| <b>Model 1 - Predictors</b>   |          |                 |                      |          |                        |                 |     |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |     |     |                      |
| Gender (Q27)  | 0.190    | 0.124           | -0.128               | -1.526   | 0.129                  |                 |     |     |                      |
| Age (Q28)   | -0.048   | 0.036           | -0.120               | -1.305   | 0.194                  |                 |     |     |                      |
| Educational Level Attained (Q29)  | -0.008   | 0.127           | -0.005               | -0.062   | 0.951                  |                 |     |     |                      |
| Years in the School District (Q30)  | 0.026    | 0.029           | 0.083                | 0.919    | 0.360                  |                 |     |     |                      |
| Significant Other Status (Q31)  |          |                 |                      |          |                        |                 |     |     |                      |
| <b>Model 2 - Predictors</b>   |          |                 |                      |          |                        |                 |     |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |                 |     |     |                      |
| Gender (Q27)  | 0.119    | 0.139           | -0.080               | -0.854   | 0.395                  |                 |     |     |                      |
| Age (Q28)   | -0.034   | 0.039           | -0.086               | -0.864   | 0.389                  |                 |     |     |                      |
| Educational Level Attained (Q29)  | -0.002   | 0.130           | -0.002               | -0.018   | 0.986                  |                 |     |     |                      |
| Years in the School District (Q30)  | 0.031    | 0.030           | 0.096                | 1.032    | 0.304                  |                 |     |     |                      |
| Significant Other Status (Q31)  | -0.131   | 0.136           | -0.092               | -0.958   | 0.340                  |                 |     |     |                      |
| District Level Administrative Policies and Practices (Q2)   | -0.060   | 0.072           | -0.108               | -0.837   | 0.404                  |                 |     |     |                      |
| Benefits (Q4)   | 0.041    | 0.073           | 0.061                | 0.563    | 0.574                  |                 |     |     |                      |
| Interpersonal Relations with Colleagues (Q6)  | 0.018    | 0.062           | 0.030                | 0.294    | 0.769                  |                 |     |     |                      |
| Interpersonal Relations with Parents/Guardians (Q7)   | 0.046    | 0.074           | 0.067                | 0.625    | 0.533                  |                 |     |     |                      |
| Interpersonal Relations with Students (Q8)  | -0.113   | 0.081           | -0.137               | -1.392   | 0.166                  |                 |     |     |                      |
| Job Security (Q10)  | -0.097   | 0.081           | -0.113               | -1.188   | 0.237                  |                 |     |     |                      |
| Job Impact on Personal Life (Q11)   | -0.095   | 0.059           | -0.182               | -1.606   | 0.111                  |                 |     |     |                      |
| Salary (Q14)  | -0.024   | 0.092           | -0.029               | -0.264   | 0.792                  |                 |     |     |                      |
| School Level Administration and Supervision (Q15)   | -0.042   | 0.055           | -0.087               | -0.759   | 0.449                  |                 |     |     |                      |
| Status (Q16)  | 0.066    | 0.072           | 0.100                | 0.919    | 0.360                  |                 |     |     |                      |
| Working Conditions (Q17)  | 0.002    | 0.064           | 0.004                | 0.036    | 0.972                  |                 |     |     |                      |
| *indicates significance   |          |                 |                      |          |                        |                 |     |     |                      |

***RQ6-Subquestion 11 (RQ6-SQ11).*** Do rural Alaska job factors predict teacher reported propensity to leave the teaching profession?

To answer RQ6-SQ11, sequential multiple regression (RQ6-R11) was utilized. Teacher propensity to leave the teaching profession served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables used in model one, and rural Alaska job factors (teacher housing, village amenities, village connectedness) were the independent variables added in model two of the sequential multiple regression.

In RQ6-R11, model 1, the teacher demographic variables were not jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession. A weak positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the school district was found ( $R = .275$ ;  $R \text{ square} = .076$ ). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district were age ( $B = -.081$ ;  $\beta = -.186$ ) and gender ( $B = .290$ ;  $\beta = -.176$ ) with younger age and maleness correlated with teacher propensity to leave the teaching profession (see Table 45 (RQ6-R11)).

In RQ6-R11, model 2, when rural Alaska job variables were added to the demographic variables in the regression model, the variables were not jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession. The predictor variable that had a significant correlation

Table 45

*RQ 6-R11: Sequential Multiple Regression for Propensity to Leave the Teaching Profession (Rural Alaska Factors)*

| <b>RQ6-R11: Sequential Multiple Regression for Propensity to Leave the Teaching Profession (Rural Alaska Factors)</b> |          |                 |                      |          |                        |          |     |     |                      |  |
|---|----------|-----------------|----------------------|----------|------------------------|----------|-----|-----|----------------------|--|
|   | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | F change | df1 | df2 | sig. <i>f</i> change |  |
| Model 1   | 0.275    | 0.076           | 0.042                | 0.778    | 0.076                  | 2.247    | 5   | 137 | 0.053                |  |
| Model 2   | 0.315    | 0.099           | 0.045                | 0.777    | 0.023                  | 1.155    | 3   | 134 | 0.329                |  |
| <b>Model 1 - Predictors</b>   |          |                 |                      |          |                        |          |     |     |                      |  |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |  |
| *Gender (Q27)   | 0.290    | 0.136           | -0.176               | -2.130   | 0.035*                 |          |     |     |                      |  |
| *Age (Q28)  | -0.081   | 0.039           | -0.186               | -2.067   | 0.041*                 |          |     |     |                      |  |
| Educational Level Attained (Q29)  | 0.001    | 0.138           | 0.001                | 0.007    | 0.994                  |          |     |     |                      |  |
| Years in the School District (Q30)  | 0.023    | 0.031           | 0.066                | 0.748    | 0.456                  |          |     |     |                      |  |
| Significant Other Status (Q31)  | -0.234   | 0.144           | -0.148               | -1.631   | 0.105                  |          |     |     |                      |  |
| <b>Model 2 - Predictors</b>   |          |                 |                      |          |                        |          |     |     |                      |  |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |  |
| *Gender (Q27)   | 0.272    | 0.138           | -0.164               | -1.974   | 0.050*                 |          |     |     |                      |  |
| Age (Q28)   | -0.076   | 0.040           | -0.175               | -1.931   | 0.056                  |          |     |     |                      |  |
| Educational Level Attained (Q29)  | 0.001    | 0.138           | 0.001                | 0.007    | 0.994                  |          |     |     |                      |  |
| Years in the School District (Q30)  | 0.028    | 0.031           | 0.080                | 0.903    | 0.368                  |          |     |     |                      |  |
| Significant Other Status (Q31)  | -0.210   | 0.145           | -0.132               | -1.450   | 0.149                  |          |     |     |                      |  |
| Teacher Housing (Q19)   | -0.070   | 0.05            | -0.137               | -1.397   | 0.165                  |          |     |     |                      |  |
| Village Amenities (Q20)   | -0.005   | 0.060           | -0.009               | -0.091   | 0.928                  |          |     |     |                      |  |
| Village Connectedness (Q21)   | -0.020   | 0.062           | -0.031               | -0.327   | 0.744                  |          |     |     |                      |  |
| *indicates significance   |          |                 |                      |          |                        |          |     |     |                      |  |

( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school district was gender ( $B = .272$  ;  $\beta = -.164$ ) with maleness being more correlated with teacher propensity to leave the teaching profession (see Table 45 (RQ6-R11)).

***RQ6-Subquestion 12 (RQ6-SQ12).*** Does teacher reported overall job satisfaction/dissatisfaction predict teacher reported propensity to leave the teaching profession?

To answer RQ6-SQ12, sequential multiple regression (RQ6-R12) was utilized. Teacher propensity to leave the teaching profession served as the dependent variable, with teacher demographic variables (years in the school district, gender, educational level attained, age, and significant other status) serving as the first sequential independent variables used in model one, and teacher reported overall job satisfaction was the independent variables added in model two of the sequential multiple regression.

In RQ6-R12, model 1, the teacher demographic variables were not jointly found to have a significant ( $p \leq .05$ ) correlation with the dependent variable teacher propensity to leave the teaching profession. No single predictor variable was found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession (see Table 46 (RQ6-R12)).

In RQ6-R12, model 2, when overall job satisfaction was added to the demographic variables in the regression model, the variables were jointly found to have a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the school. A moderate positive linear relationship between the independent variables and the dependent variable teacher propensity to leave the teaching profession was found ( $R = .339$ ;  $R$  square = .115). The predictor variable that had a significant correlation ( $p \leq .05$ ) with the dependent variable teacher propensity to leave the teaching profession was teacher reported overall job satisfaction ( $B = -.201$ ;  $\beta = -.281$ ) (see Table 46 (RQ6-R12)).



Table 46

*RQ 6-R12: Sequential Multiple Regression for Propensity to Leave the Teaching Profession (Overall Job Satisfaction)*

| <b>RQ6-R12: Sequential Multiple Regression for Propensity to Leave the Teaching Profession (Overall Job Satisfaction)</b> |          |                 |                      |          |                        |          |     |     |                      |
|---|----------|-----------------|----------------------|----------|------------------------|----------|-----|-----|----------------------|
|   | <i>r</i> | <i>r</i> square | adj. <i>r</i> square | SEE      | <i>r</i> square change | F change | df1 | df2 | sig. <i>f</i> change |
| Model 1   | 0.208    | 0.043           | 0.009                | 0.723    | 0.043                  | 1.257    | 5   | 139 | 0.286                |
| *Model 2  | 0.339    | 0.115           | 0.077                | 0.698    | 0.072                  | 11.203   | 1   | 138 | 0.001*               |
| <b>Model 1 - Predictors</b>   |          |                 |                      |          |                        |          |     |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)  | 0.218    | 0.126           | 0.144                | 1.733    | 0.085                  |          |     |     |                      |
| Age (Q28)   | -0.054   | 0.037           | -0.133               | -1.458   | 0.147                  |          |     |     |                      |
| Educational Level Attained (Q29)  | 0.021    | 0.129           | 0.014                | 0.165    | 0.869                  |          |     |     |                      |
| Years in the School District (Q30)  | 0.019    | 0.029           | 0.059                | 0.667    | 0.506                  |          |     |     |                      |
| Significant Other Status (Q31)  | -0.166   | 0.131           | -0.114               | -1.261   | 0.209                  |          |     |     |                      |
| <b>Model 2 - Predictors</b>   |          |                 |                      |          |                        |          |     |     |                      |
|   | <i>B</i> | <i>SE B</i>     | $\beta$              | <i>t</i> | <i>p</i>               |          |     |     |                      |
| Gender (Q27)  | 0.141    | 0.124           | 0.093                | 1.138    | 0.257                  |          |     |     |                      |
| Age (Q28)   | -0.028   | 0.036           | -0.069               | -0.772   | 0.442                  |          |     |     |                      |
| Educational Level Attained (Q29)  | 0.019    | 0.124           | 0.013                | 0.153    | 0.878                  |          |     |     |                      |
| Years in the School District (Q30)  | 0.024    | 0.028           | 0.074                | 0.873    | 0.384                  |          |     |     |                      |
| Significant Other Status (Q31)  | -0.166   | 0.127           | -0.115               | -1.313   | 0.191                  |          |     |     |                      |
| *Overall Job Satisfaction (Q22)   | -0.201   | 0.060           | -0.281               | -3.347   | 0.001*                 |          |     |     |                      |
| *indicates significance   |          |                 |                      |          |                        |          |     |     |                      |

## Chapter Summary

One hundred seventy (170) survey responses were received from the teachers in the Bering Strait School District resulting in a 75.9% participation rate. Statistical data analysis was performed on the survey data that was collected to answer the five research questions in this study. The results of this statistical analysis were placed in tables and presented in detail in this chapter. An explication and summary of the statistical results that were presented in detail in Chapter IV directly follows this section in Chapter V.

Chapter V will also address the theoretical and practical implications of the results, and present recommendations for policy and practice, and future research.

## Chapter V

### Explication and Summary of the Results, Implications, and Recommendations

*If you want someone to do a good job, give them a good job to do.*

- Frederick Herzberg

#### Organization of Chapter V

Chapter V will explicate and summarize the results of the study, as well as discuss the theoretical implications of the study, practical implications of the study (including recommendations for policy and practice), recommendations for future research, followed by a conclusion highlighting the key takeaways from the study.

#### Chapter Overview

The quantitative data from teacher survey questionnaire responses that was collected, analyzed, and presented in Chapter IV, contributed to the explication of the results, implications, and the recommendations presented in this chapter. A review of the related literature in light of the data analysis results assisted in developing the theoretical and practical implications of the study, recommendations for policy and practice, and recommendations for future research. The results of the study will be considered from the perspective of prior studies examining Herzberg's motivation-hygiene theory and propensity to leave (the theoretical framework of the study), with respect to previous studies in PK-12 education, and in terms of results that are unique to this specific study.

#### Explication and Summary of the Results of the Study

##### **Research Question 1 (RQ1) Explication of the Results.**

*RQ1: How do teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors, hygiene factors, and rural*

***Alaska job factors? Do the satisfaction/dissatisfaction ratings according to these groups significantly differ?***

*Teacher Satisfaction and Dissatisfaction with Motivation-Hygiene and Rural Alaska Factors.* The first research question of this study focused on teachers reported satisfaction and dissatisfaction with Herzberg's motivation-hygiene variables and rural Alaska job variables. Teachers reported that they were more satisfied by motivator factors ( $\bar{x} = 5.118$ ), than hygiene factors ( $\bar{x} = 4.993$ ), or rural Alaska job factors ( $\bar{x} = 4.530$ ) (a repeated measures ANOVA test was used to confirm that these differences were statistically significant), placing the mean score for each category of job satisfaction variable in the slightly satisfied (= 4.0) to moderately satisfied (= 5.0) range, resulting in teachers reporting being more satisfied than dissatisfied with each category of job satisfaction variable. Teachers also reported that they were more satisfied than dissatisfied with each individual motivator, hygiene, and rural Alaska job variable. The table (RQ1-D1) below presents the level of job satisfaction reported by teachers for each job satisfaction factor type, motivation-hygiene variable, and rural Alaska job variable (see Table 3 (RQ1-D1)).

Of the 21 job satisfaction variables, teachers reported being at least moderately satisfied (= 5.0) with 10 of the job satisfaction variables. Teachers were most satisfied with job security ( $\bar{x} = 5.601$ ), the work itself ( $\bar{x} = 5.506$ ), salary ( $\bar{x} = 5.473$ ), interpersonal relations with students ( $\bar{x} = 5.371$ ), and achievement ( $\bar{x} = 5.234$ ). Teachers were least satisfied with job impact on personal life ( $\bar{x} = 4.325$ ), village amenities ( $\bar{x} = 4.345$ ), teacher housing ( $\bar{x} = 4.48$ ), district level administrative policies and practices ( $\bar{x} = 4.671$ ), and school level administration and supervision ( $\bar{x} = 4.765$ ). The mean scores

demonstrate that, overall, teachers were more than slightly satisfied (slightly satisfied = 4.0), but less than moderately satisfied (moderately satisfied = 5.0), with the job satisfaction variables.

Given the unique context of rural Alaska, it may be understandable why teachers would report the highest level of satisfaction with job security (despite being an extrinsic or hygiene variable). Given the human and financial resources that school and district administrators invest in recruiting teachers to rural Alaska, it is not surprising that teachers perceive high levels of job security. On balance, school principals in the school district are not likely to consider non-renewing teachers who have proven that they are willing and capable of executing the duties of their position, since the time, effort, lost cultural knowledge and relationships with students and families, and uncertainty about how a new incoming teacher may acclimatize to the position, and perhaps, teacher housing considerations, can mean making personnel changes that are not demonstrably necessary a potentially unrewarding, if not risky, undertaking.

It is not unexpected that the work itself (the perception the job is intrinsically worthwhile and important) would be among the most satisfying job variables reported by teachers. The work itself has been found to be a satisfying variable in other studies, including by Herzberg et al. (1959). Many educators enter the profession of teaching with the intention of making a difference in the lives of their students and benefiting society, and made career choices prioritizing the rewards of teaching over the promise of potential greater compensation in other professions.

While salary may not typically be perceived as one of the primary rewards of a teaching in public schools, given the unique context of rural Alaska, it may be

understandable why teachers would report salary (an extrinsic or hygiene factor) as one of the variables providing the highest levels of satisfaction. Teacher salaries provided in the Bering Strait School District, as in many other rural Alaska school districts, are substantially higher than are generally found in most public school districts in the national context. In the 2020-2021 school year, the beginning salary for a teacher with a bachelor's degree and no prior teaching salary was \$53,169, placing it well above the national average of \$43,555. It may well be that while many teachers did not enter the teaching profession with the expectation of high salaries, the relatively higher salaries offered in the Bering Strait School District exceeded the prior expectations of teachers.

It was not unexpected that the lowest levels of satisfaction were reported by teachers in the areas of job impact on personal life and village amenities. Given the relatively low population of villages in the region, relative isolation of the villages from larger population centers, limited availability of groceries, basic supplies, and clothing, and in most instances, little or no access to restaurants, nightlife, or commercial entertainment, it is understandable how these lived realities would cause teachers to be least satisfied with job impact on personal life and village amenities.

It was also not unexpected that teacher housing was among the variables that was least satisfying for teachers. Teacher housing in villages in the district is very limited, is typically owned or rented by the school district, is assigned by school or district administrators (sometimes requiring assigned teacher roommates), with not all villages in the district have running water or sewage in teacher housing, necessitating that teachers fill a storage tank in teacher housing to store water, perhaps shower at the school to conserve water, and use a 'honey bucket' for toilet usage.

While it is not unexpected that teachers reported lower levels of job satisfaction in the areas of job impact on personal life, village amenities, and teacher housing, what is perhaps unexpected is that teachers did not report outright dissatisfaction in any of these areas. This may suggest that teachers are at least in some measure mentally prepared for the unique lifestyle challenges of the region in their decisions to come to live in work in rural Alaska, and/or that they at least in some measure have become accustomed to and made peace with the challenges of living in rural Alaska in their decisions to remain in rural Alaska.

***RQ1 Summary of the Results.*** Teachers reported that they were more satisfied by motivator factors than hygiene factors, or rural Alaska job factors, placing the mean score for each category of job satisfaction variable in the slightly satisfied to moderately satisfied range, resulting in teachers reporting being more satisfied than dissatisfied with each category of job satisfaction variable. Among all the job satisfaction variables, teachers were most satisfied with job security, the work itself, salary, interpersonal relations with students, and achievement. Teachers were least satisfied with job impact on personal life, village amenities, teacher housing, district level administrative policies and practices, and school level administration and supervision.

#### **Research Question 2 (RQ2) Explication of the Results.**

***RQ2: Is a dual factor model of job satisfaction (as Herzberg theorized) supported by how teachers in the Bering Strait School District rate their job satisfaction/dissatisfaction according to motivator factors and hygiene factors?***

*The Dual Factor or Bifurcated Nature of Herzberg's Motivation-Hygiene Theory.*

The second research question of this study sought to ascertain whether the dual factor or

bifurcated nature of Herzberg's motivation-hygiene theory was upheld by the data collected in this study. According to the motivation-hygiene theory (Herzberg et al., 1959), motivator factors primarily affect the level of satisfaction experienced by employees, while hygiene factors primarily affect the level of dissatisfaction experienced by employees. Previous research with respect to PK-12 teachers has found that there is significant variance in the degree to which the bifurcated or dual factor nature of Herzberg's theory has been upheld.

*Studies that Generally Supported a Dual Factor Model.* A number of prior studies in PK-12 education have provided support for Herzberg's motivation hygiene theory by yielding findings consistent with a bifurcated or dual factor model. Studies that have produced findings that have generally supported a bifurcated or dual factor model include: Sergiovanni (1967), Bishop (1969), Schmidt (1976), Kyriacou and Sutcliffe (1979), Sullivan (1981), Goodson (1984), Helms (1984), King et al. (1988), Rasmussen (1990), and Phelps (1995).

*Studies that Generally Did Not Support a Dual Factor Model.* A number of prior studies in PK-12 education have yielded findings that are not consistent with a bifurcated or dual factor model. Studies that have produced findings that have generally not supported a bifurcated or dual factor model include: Jaycox and Tallman (1967), Tammen (1971), Miskel (1974), Godfrey (1978), Medved (1982), Young and Davis' (1983), Friesen et al. (1983), Tutor (1986), Dvorak and Phillips (2001), Juozaitiene and Simon (2011), and Atalic et al. (2016). The reasons that these studies did not support a bifurcated model were varied. Some studies found that both Herzberg's motivation and hygiene factors served as satisfiers, some found that both sets of factors served as



satisfiers and dissatisfiers, some found that certain factors served as both satisfiers and dissatisfiers, while other factors performed in the opposite fashion.

It is worth noting, that despite having not supported the bifurcated or dual factor nature of Herzberg's theory, many of these studies have cited the relevance and/or pragmatic application of the motivation-hygiene factors themselves in influencing or predicting employee job satisfaction, but did not find that there was a clear delineation between the two types of factors that resulted in motivator factors primarily contributing to employee satisfaction and hygiene factors primarily contributing to employee dissatisfaction.

*Studies that In Part Supported and In Part Did Not Support a Dual Factor Model.*

A number of prior studies in PK-12 education have yielded findings that are in part consistent with a bifurcated or dual factor model and in part inconsistent with a bifurcated or dual factor model. Studies that have produced findings that have partially supported a bifurcated or dual factor model include: Savage (1967) found that interpersonal relationships with students, a hygiene factor (aligned with Herzberg's interpersonal relationships with subordinates), tended to be a motivator for the teachers instead of a hygiene factor as Herzberg found for engineers and accountants. Hanson and Stanley (1970) found that while most factors behaved as motivation or hygiene factors as Herzberg postulated, the work itself served as both a satisfier and a dissatisfier. McGreal (1968) findings were generally supportive of Herzberg's motivation-hygiene theory, however, some overlap between motivation and hygiene factors was found. Hammer et al. (1970) found that while growth, advancement, supervision, and job security performed in a manner consistent with the motivation-hygiene theory, other identified

factors did not perform as exclusive motivator or hygiene factors. While Wickstrom's (1971) findings generally supported Herzberg's concept, Wickstrom found that interpersonal relationships served as a motivator factor for teachers rather than a hygiene factor. Cates (1984) found that for the teachers surveyed, the hygiene factor 'salary' and the motivator factor 'responsibility' were found to affect both continua.

*This Study's Findings with Respect to Herzberg's Dual Factor Theory.* Through an examination of the results of the mean scores, a bifurcated or dual factor model as Herzberg postulated is not supported by the data that was collected. While teachers reported higher levels of job satisfaction with the motivator variables category ( $\bar{x} = 5.118$ ) than the hygiene variables category ( $\bar{x} = 4.993$ ), the mean scores indicated that as a group, both motivator and hygiene variables, as well as each individual motivator and hygiene variable, contributed to greater teacher satisfaction than dissatisfaction. These results are not consistent with a bifurcated or dual factor model (see Table 5 (RQ2-D1)).

Herzberg theorized that hygiene factors could lead to worker dissatisfaction if not maintained, but generally would not satisfy workers, while it is motivator factors that would have the potential to satisfy workers if hygiene factors are maintained. In this study, teachers reported that hygiene factors were a source of satisfaction, with all hygiene factors receiving a mean score of greater than 4.0 (slightly satisfied), and with the category mean score for the hygiene variables ( $\bar{x} = 4.993$ ) approaching 5.0 (moderately satisfied). The job satisfaction variable with the highest reported level of satisfaction was job security ( $\bar{x} = 5.601$ ), which is a hygiene factor. Three of the four highest job satisfaction levels that were reported by teachers for job satisfaction variables

were attributed hygiene factors (job security, salary, interpersonal relations with students), and five of the ten highest job satisfaction levels that were reported by teachers for job satisfaction variables were attributed to hygiene factors (job security, salary, interpersonal relations with students, benefits, status), all of which had mean scores above 5.0 (moderately satisfied). The high satisfaction levels that were reported for hygiene factors as a category, as well as with individual hygiene factors, are not consistent with a dual factor model which would predict that hygiene factors should not generally not be a source of employee job satisfaction.

It is worth noting here, that while the results do not support the dual factor or bifurcated nature of motivation-hygiene factors with clear delineation between motivator and hygiene factors as Herzberg postulated, the results did reveal that the motivation-hygiene variables were highly relevant constructs in predicting both overall teacher job satisfaction, and in predicting teacher propensity to leave. Both motivator and hygiene factors as group models were highly predictive of teacher overall job satisfaction, with individual motivation-hygiene variables also being found to be significant predictors of teacher overall job satisfaction (as will be discussed in RQ4). Additionally, both motivator and hygiene factors as group models were moderately predictive of teacher propensity to leave, with individual motivation-hygiene variables also being found to be significant predictors of teacher propensity to leave (as will be discussed in RQ5).

***RQ2 Summary of the Results.*** A bifurcated or dual factor model as Herzberg postulated is not supported by the data that was collected. Teachers reported being satisfied by hygiene variables as a category, as well as with individual hygiene variables,

which is not consistent with a dual factor model (which would predict that hygiene variables should not generally not be a source of employee job satisfaction).

### **Research Question 3 (RQ3) Explication of the Results.**

***RQ3: How do teachers in the Bering Strait School District rate their overall satisfaction/dissatisfaction with their teaching position?*** The third research question of this study examined how teachers rated their overall job satisfaction or dissatisfaction (which was ascertained by item number twenty-two on the questionnaire survey instrument). Teachers reported a mean score of 5.180 for their overall level of job satisfaction, meaning that they were more than moderately satisfied (= 5.0), but less than very satisfied (= 6.0), with their job overall. The overall job satisfaction level reported by teachers ( $\bar{x} = 5.180$ ) was slightly higher than the mean score for motivator factors ( $\bar{x} = 5.118$ ) and hygiene factors ( $\bar{x} = 4.993$ ), and somewhat higher rural Alaska job factors ( $\bar{x} = 4.530$ ).

Teacher demographic trends with respect to overall job satisfaction were examined. With respect to gender, female teachers reported slightly higher levels of overall job satisfaction ( $\bar{x} = 5.29$ ) than male teachers ( $\bar{x} = 4.966$ ). With respect to age, the highest levels of overall job satisfaction were reported among older teachers in the age 50-59 group ( $\bar{x} = 5.513$ ) and the 60+ age group ( $\bar{x} = 5.536$ ), while lowest levels of overall job satisfaction were scattered across age groups with no clear trend. With respect to experience in the school district, the lowest levels of overall job satisfaction were reported by teachers in their first year in the district ( $\bar{x} = 4.848$ ), while the highest levels of overall satisfaction were reported by teachers in their fourth ( $\bar{x} = 5.700$ ) and fifth ( $\bar{x} = 5.611$ ) years in the school district. With respect to educational level attained, the

levels of overall job satisfaction reported by teachers with a masters degree ( $\bar{x} = 5.231$ ) were marginally higher than teachers whose highest level of education attained was a bachelor's degree ( $\bar{x} = 5.103$ ). With respect to significant other status, teachers with a significant other living in the village ( $\bar{x} = 5.190$ ) and teachers without a significant other living in the village ( $\bar{x} = 5.191$ ) reported nearly identical levels overall job satisfaction (which is of particular interest since significant other status was found to be a significant predictor of teacher propensity to leave the school and school district in RQ5). With respect to the grade level of instruction, elementary teachers ( $\bar{x} = 5.193$ ), and teachers working with students at both the elementary and secondary levels ( $\bar{x} = 5.177$ ), reported marginally higher levels of overall job satisfaction than secondary teachers ( $\bar{x} = 5.038$ ).

***RQ3 Summary of the Results.*** Teachers reported being more than moderately satisfied, but less than very satisfied, with their job overall. With respect to demographics, female teachers reported slightly higher levels of overall job satisfaction than male teachers; teachers in their first year in the district reported the lowest levels of overall job satisfaction; the oldest teacher cohorts reported the highest levels of overall job satisfaction. With respect to the grade level of instruction, elementary teachers, and teachers working with students at both the elementary and secondary levels, reported marginally higher levels of overall job satisfaction than secondary teachers.

#### **Research Question 4 (RQ4) Explication of the Results.**

***RQ4: How do teachers in the Bering Strait School District rate their propensity to leave the school, the school district, and the teaching profession?*** The fourth research question of this study focused on how teachers in the Bering Strait School District rated their propensity to leave their school, the school district, and the teaching

profession. Teachers reported that they were approximately slightly unlikely to leave their school ( $\bar{x} = 2.05$ ) and school district ( $\bar{x} = 1.98$ ), while they were approximately very unlikely to leave the teaching profession ( $\bar{x} = 1.20$ ).

Teacher demographics with respect to propensity to leave were examined. With respect to gender, male teachers ( $\bar{x} = 2.241$ ) reported being slightly more likely to leave their school than female teachers ( $\bar{x} = 1.970$ ); male teachers ( $\bar{x} = 2.075$ ) reported being slightly more likely to leave the school district than female teachers ( $\bar{x} = 1.938$ ); and male teachers ( $\bar{x} = 1.382$ ) reported being slightly more likely to leave the profession of teaching than female teachers ( $\bar{x} = 1.111$ ). With respect to teacher age, while the results for propensity to leave the school, school district, and teaching profession varied across age groups, teachers in the 22-25 age group representing the youngest teachers, reported a higher than average propensity to leave the school ( $\bar{x} = 2.700$ ) and the school district ( $\bar{x} = 2.200$ ), and represented the group most likely to leave the teaching profession ( $\bar{x} = 1.500$ ). Older teachers in 60+ age group school were the least apt to leave the school ( $\bar{x} = 1.158$ ), the school district ( $\bar{x} = 1.158$ ), and the teaching profession (for reasons other than retirement) ( $\bar{x} = 1.053$ ). With respect to educational level attained, teachers with a master's degree ( $\bar{x} = 1.953$ ) or above were slightly less likely to leave their school than those holding only a bachelor's degree ( $\bar{x} = 2.234$ ), while there was nearly no difference in mean scores for propensity to leave the school district or leave the teaching profession. With respect to teaching years of experience in the school district, teachers in their first year ( $\bar{x} = 2.364$ ;  $\bar{x} = 2.281$ ), and second year ( $\bar{x} = 2.400$ ;  $\bar{x} = 2.273$ ) in the school district were the most likely cohorts to leave the school and school district, while second year teachers were most likely to leave the teaching profession ( $\bar{x} = 1.48$ ). With respect to

significant other status, teachers who had a significant other living in their village were notably less likely to leave the school ( $\bar{x} = 1.595$ ) and school district ( $\bar{x} = 1.527$ ) than teachers without a significant other living in the school district ( $\bar{x} = 2.538$ ;  $2.473$ ), while there was minimal difference between the two groups in their reported propensity to leave the teaching profession. With respect to grade level of instruction, teachers at the secondary level ( $\bar{x} = 2.213$ ;  $\bar{x} = 2.217$ ;  $\bar{x} = 1.417$ ) were slightly more likely to leave the school, school district, and the teaching profession than elementary teachers ( $\bar{x} = 2.013$ ;  $\bar{x} = 1.895$ ;  $\bar{x} = 1.141$ ) or teachers working with students at both levels ( $\bar{x} = 1.966$ ;  $\bar{x} = 1.857$ ;  $\bar{x} = 1.034$ ).

***RQ4 Summary of the Results.*** Teachers reported that they were approximately slightly unlikely to leave their school, and school district, while they were approximately very unlikely to leave the teaching profession. With respect to teacher demographics, the most compelling result was that teachers who had a significant other living in their village were substantially less likely to leave the school and school district than teachers without a significant other living in the school district. When examined in the regression models in RQ5, significant other status was also found to be a significant predictor of propensity to leave the school and school district.

#### **Research Question 5 (RQ5) Explication of the Results.**

***RQ5: With respect to teacher demographic factors, do each of the following three factors - motivator factors, hygiene factors, and rural Alaska job factors - predict teacher reported overall job satisfaction/dissatisfaction in the Bering Strait School District?***

*Predicting Teacher Overall Job Satisfaction.* The fifth research question of this study focused on the extent to which motivator factors, hygiene factors, and rural Alaska job factors predict teacher overall job satisfaction with respect to demographic variables. Sequential multiple regression models were used that first included teacher demographic variables, and then added motivator variables, hygiene variables, and rural Alaska job variables in subsequent models when regressing for overall job satisfaction.

Both motivator factors ( $R^2 = .686$ ) and hygiene factors ( $R^2 = .718$ ) as group models were highly predictive of teacher overall job satisfaction, with individual motivation-hygiene variables also being found to be significant predictors of teacher overall job satisfaction. Motivator variables that were found to be significant predictors ( $p \leq .05$ ) of teacher overall job satisfaction were the work itself ( $B = .305$ ;  $\beta = .254$ ), responsibility ( $B = .227$ ;  $\beta = .251$ ), growth ( $B = .152$ ;  $\beta = .161$ ), achievement ( $B = .168$ ;  $\beta = .149$ ), recognition ( $B = .099$ ;  $\beta = .136$ ). Hygiene variables that were found to be significant predictors ( $p \leq .05$ ) of teacher overall job satisfaction were district level policies and practices ( $B = .216$ ;  $\beta = .266$ ), status ( $B = .179$ ;  $\beta = .189$ ), interpersonal relations with students ( $B = .150$ ;  $\beta = .126$ ), and job impact on personal life ( $B = .066$ ;  $\beta = .068$ ). Rural Alaska job variables ( $R^2 = .389$ ) as a group model were moderately predictive of teacher overall job satisfaction. Individual rural Alaska job factors that were found to be significant predictors ( $p \leq .05$ ) of teacher overall job satisfaction were village connectedness ( $B = .260$ ;  $\beta = .308$ ) and teacher housing ( $B = .187$ ;  $\beta = .273$ ).

With respect to teacher demographic variables, the sequential multiple regression models revealed that demographic variables accounted for between 7.2% - 8.4% of the variance ( $R^2 = .72$  -  $R^2 = .84$ ). With respect to individual demographic variables, gender



(ranging from  $\beta = .169$  to  $\beta = .183$  with femaleness correlated with greater overall satisfaction) and age (ranging from  $\beta = .187$  to  $\beta = .209$  with greater age correlated with greater overall satisfaction) were significant predictors ( $p \leq .05$ ) of overall job satisfaction when the demographic variables (gender, age, educational level attained, years in the school district, significant other status) were regressed, but they were no longer significant predictors ( $p \leq .05$ ) when motivator, hygiene variables were added to regression models. Age ( $B = .102$ ;  $\beta = .187$ ) remained a significant predictor ( $p \leq .05$ ) of overall job satisfaction in the regression model (with greater age correlated with greater overall satisfaction) where rural Alaska job variables were added to demographic variables. Years of experience in the school district ( $B = .057$ ;  $\beta = .128$ ) was found to be a significant predictor ( $p \leq .05$ ) of overall job satisfaction (with more experience correlated with greater overall satisfaction) in the regression model where motivator variables were added to demographic variables.

***RQ5 Summary of the Results.*** Both motivator factors (68.6% of the variance) and hygiene factors (71.8% of the variance) as group models were highly predictive of teacher overall job satisfaction, with individual motivation-hygiene variables also being found to be significant predictors of teacher overall job satisfaction. Motivator variables that were found to be significant predictors of teacher overall job satisfaction (in descending order) were the work itself, responsibility, growth, achievement, and recognition. Hygiene variables that were found to be significant predictors of teacher overall job satisfaction (in descending order) were district level policies and practices, status, interpersonal relations with students, and job impact on personal life. Rural Alaska job factors as a group model (38.9% of the variance) were moderately predictive

of teacher overall job satisfaction. Individual rural Alaska job variables that were found to be significant predictors of teacher overall job satisfaction (in descending order) were village connectedness and teacher housing.

Femaleness and greater age were found to be significant predictors of teacher overall job satisfaction when demographic variables alone were regressed (with age remaining a significant predictor when rural Alaska job variables were added to the sequential regression). Greater experience in the school district was found to be a significant predictor overall job satisfaction in the regression model where motivator variables were added to demographic variables. Neither the gender, age, or years of experience variable was found to be a consistent predictor of teacher overall job satisfaction across the regression models once motivator, hygiene, and rural Alaska variables were considered.

#### **Research Question 6 (RQ6) Explication of the Results.**

***RQ6: With respect to teacher demographic factors, do each of the following four factors: motivator factors, hygiene factors, rural Alaska job factors, and teacher reported overall job satisfaction/dissatisfaction - predict teacher reported propensity to leave with respect to each of three leaving outcomes: leaving the school, leaving the school district, and leaving the teaching profession?*** The sixth research question of this study focused on the extent to which motivation-hygiene factors, rural Alaska factors, and teacher demographic factors, and teacher reported overall job satisfaction predict teacher propensity to leave their school, the school district, and the teaching profession. Sequential multiple regression models were used that first included teacher demographic variables, and then added motivator variables, hygiene variables, and rural Alaska job

variables in subsequent models when regressing for propensity to leave the school, school district, and the teaching profession.

*Predicting Teacher Propensity to Leave the School.* With respect to predicting propensity to leave the school, teacher demographic variables were found to be significant predictors ( $p \leq .05$ ) as an overall model (ranging between  $r^2 = .084$  to  $r^2 = .098$ ). Significant other status was found to be a significant predictor ( $p \leq .05$ ) of propensity to leave the school in each model (ranging from  $\beta = -.260$  to  $\beta = -.285$ ; with having a significant other living in the village the teacher lives and works being negatively correlated with teacher propensity to leave), and significant other status remained a significant predictor ( $p \leq .05$ ) in models that included motivator variables (SOS  $\beta = -.230$ ), hygiene variables (SOS  $\beta = -.297$ ), rural Alaska job variables (SOS  $\beta = -.230$ ), and overall job satisfaction (SOS  $\beta = -.264$ ) in addition to teacher demographic variables.

The overall models regressing for propensity to leave the school that included motivator variables ( $r^2 = .280$ ), hygiene variables ( $r^2 = .291$ ), rural Alaska job variables ( $r^2 = .250$ ), and overall job satisfaction ( $r^2 = .220$ ) were also found to be significant predictors ( $p \leq .05$ ) as models. The motivator variables that were found to be significant predictors ( $p \leq .05$ ) of propensity to leave the school were work itself ( $\beta = -.227$ ) and growth ( $\beta = -.208$ ); the hygiene variable that was found to be a significant predictor ( $p \leq .05$ ) of propensity to leave the school was district level administrative policies and practices ( $\beta = -.247$ ); and the rural Alaska job variable that was found to be a significant predictor ( $p \leq .05$ ) of propensity to leave the school was village connectedness ( $\beta = -.324$ ).

Overall job satisfaction was also found to be a significant predictor ( $p \leq .05$ ) of propensity to leave the school ( $\beta = -.385$ ) that was negatively correlated with leaving.

*Predicting Teacher Propensity to Leave the School District.* With respect to predicting propensity to leave the school district, teacher demographic variables were found to be significant predictors ( $p \leq .05$ ) as an overall model (ranging between  $r^2 = .078$  to  $r^2 = .092$ ). Significant other status was found to be a significant predictor ( $p \leq .05$ ) of propensity to leave the school in each model (ranging from  $\beta = -.261$  to  $\beta = -.286$ ; with having a significant other living in the village the teacher lives and works being negatively correlated with teacher propensity to leave), and significant other status remained a significant predictor ( $p \leq .05$ ) in models that in addition to teacher demographic variables included motivator variables (SOS  $\beta = -.225$ ), hygiene variables (SOS  $\beta = -.299$ ), rural Alaska job variables (SOS  $\beta = -.226$ ), and overall job satisfaction (SOS  $\beta = -.261$ ).

The overall models regressing for propensity to leave the school district that included motivator variables ( $r^2 = .304$ ), hygiene variables ( $r^2 = .270$ ), rural Alaska job variables ( $r^2 = .260$ ), and overall job satisfaction ( $r^2 = .242$ ) were also found to be significant predictors ( $p \leq .05$ ) as models. The motivator variables that were found to be significant predictors ( $p \leq .05$ ) of propensity to leave the school were growth ( $\beta = -.207$ ) and the work itself ( $\beta = -.259$ ); the hygiene variable that was found to be a significant predictor ( $p \leq .05$ ) of propensity to leave the school was district level administrative policies and practices ( $\beta = -.239$ ); and the rural Alaska job variable that was found to be a significant predictor ( $p \leq .05$ ) of propensity to leave the school was village connectedness ( $\beta = -.315$ ). Overall job satisfaction was also found to be a significant predictor ( $p \leq .05$ )

of propensity to leave the school district ( $\beta = -.426$ ) that was negatively correlated with leaving.

*Predicting Teacher Propensity to Leave the Teaching Profession.* With respect to predicting propensity to leave the teaching profession, teacher demographic variables were not found to be significant predictors ( $p \leq .05$ ) as an overall model. No individual demographic variable was found to be a consistent predictor of propensity to leave the teaching profession across the sequential multiple regression models (for motivator variables, hygiene variables, and overall job satisfaction). Gender ( $\beta = -.176$ ) and age ( $\beta = -.186$ ) were found to be a significant predictor ( $p \leq .05$ ) of propensity to leave the teaching profession (with more experience and femaleness negatively correlated with greater propensity to leave the teaching profession) in the regression model where rural Alaska job factors were added to demographic variables, with gender ( $\beta = -.164$ ) being a significant predictor of propensity to leave the teaching profession once rural Alaska job factors were included in the regression model, and age no longer being a significant predictor.

Motivator variables were found to be a significant predictor of propensity to leave the teaching profession as a overall model ( $r^2 = .201$ ), while the overall models regressing for teacher propensity to leave the teaching profession that included hygiene variables, and rural Alaska job variables were not found to be significant predictors ( $p \leq .05$ ). Individual motivator variables that were found to be significant predictors of propensity to leave the teaching profession include the work itself ( $\beta = -.215$ ) and achievement ( $\beta = -.289$ ) being negatively correlated with leaving the teaching profession, and advancement ( $\beta = .261$ ) notably being positively correlated with leaving the teaching

profession. Overall job satisfaction when added to demographic variables was found to be a significant predictor model ( $r^2 = .115$ ) of propensity to leave the teaching profession, with overall job satisfaction being a significant individual predictor variable ( $\beta = -.281$ ) that was negatively correlated with leaving the teaching profession.

***RQ6 Summary of the Results.*** The overall models regressing for propensity to leave the school and school district that included teacher demographic variables in addition to overall job satisfaction, motivator variables, hygiene variables, and rural Alaska job variables were each found to be significant predictors as models. This indicates the relevance of motivator variables, hygiene variables, and rural Alaska variables in predicting teacher propensity to leave the school and school district. The demographic variable of significant other status was also found to be a significant predictor of teacher propensity to leave the school and school district in each model. No other demographic variables were significant predictors of teacher propensity to leave the school or school district.

With regard to teacher propensity to leave the teaching profession, the overall model in which motivator variables when added to teacher demographic variables was found to be a significant predictor, while the overall models that included hygiene variables, and rural Alaska job variables were not found to be significant predictors of teachers leaving the profession. Individual motivator variables that were found to be significant predictors of propensity to leave the teaching profession include achievement and the work itself, with satisfaction in these areas negatively correlated with leaving the profession, while advancement was notably positively correlated with leaving the teaching profession as teachers reported their intention to leave the profession when they

saw opportunities for advancement outside of the teaching profession. With respect to predicting propensity to leave the teaching profession, teacher demographic variables were not found to be significant predictors as an overall model. While femaleness and greater age were found to be negatively correlated with leaving the profession in select regression models, neither gender or age was found to be a consistent predictor of teacher indicated propensity to leave the profession across the regression models for motivator, hygiene, and rural Alaska variables.

### **Theoretical Implications of the Results of the Study**

Herzberg et al.'s (1959) classic study of engineers, found achievement, followed by recognition, the work itself, responsibility, and advancement to be important motivating factors of employees. This study examined how motivation-hygiene variables predicted teacher overall job satisfaction. The results of this study indicated that most of the motivator factors of Herzberg et al.'s (1959) study were significant predictors of overall job satisfaction for teachers. In descending order, the work itself ( $\beta = .254$ ), responsibility ( $\beta = .251$ ), growth ( $\beta = .161$ ), recognition ( $\beta = .136$ ), and achievement ( $\beta = .149$ ) were found to be significant predictors of teacher overall job satisfaction. Of Herzberg's motivator factors, only advancement was not found to be a significant predictor of teacher overall job satisfaction. After including teacher demographic variables, motivator variables accounted for 68.6% ( $r^2 = .686$ ) of the variance in teacher overall job satisfaction.

In contrast to Herzberg's motivation-hygiene theory that postulated that hygiene factors may be sources of employee dissatisfaction if not maintained, but should not under normal circumstances be sources of employee satisfaction, the results of this study

indicate that the following hygiene factors (listed in descending order) were found to be significant predictors of teacher overall job satisfaction: district level administrative policies and practices ( $\beta = .266$ ), job impact on personal life ( $\beta = .199$ ), status ( $\beta = .189$ ), and interpersonal relations with students ( $\beta = .126$ ). After including teacher demographic variables, hygiene variables accounted for 71.8% ( $r^2 = .718$ ) of the variance in teacher overall job satisfaction.

While teachers reported higher levels of job satisfaction for motivator factors as a group than for hygiene factors as a group, the results do not support, as Herzberg's theory suggested, that job satisfaction should be attributed to motivator factors, while job dissatisfaction should be attributed to hygiene factors. Based on this result, there are two theoretical implications of note.

**Enduring Pragmatic Value of Herzberg's Motivation-Hygiene theory.** The first theoretical implication of note, is that while as applied to the teachers of the Bering Strait School District there was not a clear bifurcated delineation between job satisfaction and job dissatisfaction determinants as Herzberg's theory suggested, this in no way diminishes the pragmatic value of motivation-hygiene theory for achieving the objectives of this study, nor does it weaken the case for its utilization as the theoretical framework for future studies.

Herzberg's motivation-hygiene theory is so widely known and utilized, at least in part, precisely because it is simple, general, and practical in its direct application in the workplace. Some researchers have moved toward adopting more complex formulations of job satisfaction that forgo the simplicity and straightforwardness of Herzberg's theory. While it is possible to adopt more complex models for examining job satisfaction, as we



move toward greater complexity in describing job satisfaction we lose simplicity, comprehensibility, and direct applicability to the workplace (Smerek, 2007).

Thorngate's (1976) postulate of commensurate complexity asserted that it is impossible for a theory of social behavior to at once fully achieve generality, accuracy, and simplicity, and while a degree of each of these may be achieved, one of these aspects must always be subordinated to the others (Smerek, 2007). For example, case studies may achieve accuracy and simplicity, but do not provide a high degree of generalizability, while complex psychoanalytic theories may provide generalizability and accuracy, but do little in the way of providing simplicity (Smerek, 2007). While Herzberg's theory provides relative simplicity and generalizability, what sacrifices are made with respect to accuracy, and are these trade-offs worth it?

Herzberg's theory, in part, asks us to consider whether the determinants of job satisfaction are primarily related to the intrinsic aspects of the job itself, or whether conversely, satisfaction and dissatisfaction are the product of an ongoing series of interactions between the worker and the environment in which each interaction may potentially lead to either satisfaction or dissatisfaction (Smerek, 2007). While this is an important consideration, as this study has demonstrated, testing the dual factor aspect of Herzberg's theory is not the only means for determining the value of the motivation-hygiene theory to research.

In the case of the results of this study, theoretical accuracy in the form of the applicability of the dual factor or bifurcated nature of the motivation-hygiene theory to the teachers of the Bering Strait School District was sacrificed, as this aspect of the theory was not found to be upheld. However, what was gained through the utilization of

the motivation-hygiene constructs in this study, was simplicity and comprehensibility of the variables, and the practical applicability of the results to the context of the educational workplace. The motivation-hygiene constructs were both comprehensible to teachers and readily adapted for collecting data from teachers, as well as directly applicable to the workplace, allowing for relative ease in interpretation of the findings of the study by educational practitioners.

In this study, the motivation-hygiene theory provided a practical and comprehensible framework for identifying the degree to which job-related factors satisfy teachers, contribute to overall job satisfaction, and predict teacher propensity to leave, which is valuable data that can be applied by educational practitioners in the formulation of educational policy and practice. In sum, the application of the motivation-hygiene constructs in measuring employee satisfaction in the workplace has real-world practical value for informing initiatives aimed at improving employee job satisfaction (and by extension motivation and retention), which exists apart from the ability of the researcher to replicate the dual factor or bifurcated nature of the theory.

**Methodology Matters.** The second theoretical implication of note, and one that past research on job satisfaction has noted, is that the research methodology that is employed by a study can profoundly affect the results that are obtained. Past studies of job satisfaction in the workplace indicate that studies that have used the critical-incident technique used by Herzberg have yielded results that have tended to support his conclusions, while studies that have employed an uniscalar approach (or utilized other methodologies) have not always supported his theory (Smerek, 2007).

The difference between the two methodological approaches to research is that the critical incident technique involves study participants reporting an incident that leads to a feeling of satisfaction or dissatisfaction, which is distinct from study participants reporting a general attitudinal level of satisfaction or dissatisfaction on a scale according to an identified factor, but without a specified cause. While they may be related, as psychological phenomena, an event and an attitude are distinct concepts. It is entirely possible that if this study were to have employed the critical incident technique in its methodology (rather than the Likert scale based quantitative survey approach data that was utilized), the results might have supported a bifurcated or dual factor model as Herzberg postulated. In sum, one possible implication of this study is that theoretical findings (and perhaps practical ones as well) are highly influenced by the methodological choices that are made, perhaps more so than many researchers and social scientists typically go out of their way to acknowledge (Smerek, 2007).

### **Practical Implications of the Results of the Study**

In light of the aforementioned literature on teacher job satisfaction and retention (discussed in Chapter II), as well as the results of this study, it would behoove educational policymakers and practitioners to collect and analyze data from teachers about their job satisfaction and dissatisfaction and then seek to implement strategies that help to support increasing rates of teacher retention. A data driven approach to understanding and addressing teacher retention may be especially valuable in schools and districts where rates of teacher turnover are the highest and where recruiting new teachers has proven to be the most challenging (which the literature suggests also tend to be those

that serve the highest proportion of students of color and those from low income households). Thornton (2004) observed:

Teachers are the ones most intimately involved with the real life challenges of being and remaining enthusiastic, dedicated, and effective teachers. Listening to their voices may be a better place to begin to address the teacher shortage over the long haul rather than focusing on short term, quick fix solutions.

By identifying and addressing key factors that contribute to teacher job satisfaction and dissatisfaction, implementing tailored policies and practices designed to support teachers can, over time, increase rates of teacher retention, and thereby provide better stability and instructional support for the students that they serve.

While teacher shortages continue to be experienced by many schools and districts both in rural Alaska and nationwide, and while calls for school and district accountability and increased student achievement resonate in the public discourse, a thorough examination of how to retain effective teachers is both timely and advantageous. While the predominant policy response to teacher shortages has focused on attracting more teachers either to schools, districts, or the profession through incentives, retaining effective teachers through addressing teacher job satisfaction at the school and district level may be a more fruitful avenue in which to invest time and resources (Thornton, 2004). As Farthing (2006) observed:

Teachers are offered a number of incentives when recruited. Among them are alternative routes to licensure, supplements or bonuses, student loan forgiveness, affordable housing, and tuition-free classes. As enticing as these are, they may need to be considered secondary to focusing on job satisfaction (which supports the Herzberg theory described earlier). (p. 47)

Listening to the voices of teacher participants in this study revealed substantive issues that can be addressed within the context of the school organization, while providing opportunities for further support, investigation, and research at other levels.

**Focusing on Key Job Satisfaction Variables.** While it is challenging to influence given the number of considerations involved, working to improve teacher overall job satisfaction should be an ongoing focus. Overall job satisfaction when added to demographic variables was found to be a significant predictor model of propensity to leave the school ( $r^2 = .220$ ; accounting for 22% of the variance), the school district ( $r^2 = .242$ ; accounting for 24.2% of the variance), and the teaching profession ( $r^2 = .115$ ; accounting for 11.5% of the variance), while when added to demographic variables overall job satisfaction was found to be a significant individual predictor variable of propensity to leave the school ( $\beta = -.385$ ), school district ( $\beta = -.426$ ), and teaching profession ( $\beta = -.281$ ) that was negatively correlated with teachers leaving.

Since teacher job satisfaction is critical to the functional effectiveness of school districts as organizations, there are significant practical implications of this research study. Job satisfaction is important, not only because of a humanistic desire to improve the quality of worklife for employees, but also for its potential impact on outcomes such as retention and turnover, motivation, and productivity. Thus, school administrators concerned with the climate, culture, and effectiveness of their schools and school districts should be concerned with teacher job satisfaction (and by extension, so should policymakers, politicians, parents, and community members given the stakes involved in the public education of children who will one day enter society and the workforce).

Given the resource constraints of school districts, strategically aligning human and financial resources to positively influence job satisfaction should aid overall school and district efficiency and successful functioning, as well as serve to aid in maximizing teacher retention, thereby reducing teacher turnover (Smerek, 2007). Therefore, given

the aforementioned, in addition to focusing on teacher overall job satisfaction discussed above, based on the results of this study, educational leaders should focus on addressing the following job satisfaction variables:

***The Work Itself.*** Working to improve teacher perception of the work itself (the perception that the job is intrinsically worthwhile and important) is paramount. Of the motivator factors that were examined in the regression models, the work itself was the strongest predictor of overall job satisfaction ( $\beta = .254$ ), the strongest predictor of teacher propensity to leave the school ( $\beta = -.227$ ), the strongest predictor of teacher propensity to leave the school district ( $\beta = -.259$ ), and the third strongest predictor of propensity to leave the teaching profession ( $\beta = -.215$ ).

When the work itself as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, the work itself alone accounted for 42.7% of the variance ( $r^2 = .427$ ). When the work itself as a singular independent variable was regressed with the dependent variable of teacher propensity to leave the school, the work itself alone accounted for 14.1% of the variance ( $r^2 = .141$ ); when the work itself as a singular independent variable was regressed with the dependent variable of teacher propensity to leave the school district, the work itself alone accounted for 15.3% of the variance ( $r^2 = .153$ ); and when the work itself as a singular independent variable was regressed with the dependent variable of propensity to leave the teaching profession the work itself alone accounted for 14.9% of the variance ( $r^2 = .149$ ). The level of influence on teacher overall job satisfaction and teacher propensity to leave exerted by this one factor alone, underscores why improving teacher perceptions of the work itself should be an ongoing area of focus. The school district (and by extension the

state department of education) have a vested interest in enhancing teacher perception that work itself (the enterprise of teaching students in rural Alaska) is intrinsically worthwhile and important.

Teacher perception of the degree to which the vocation of teaching is intrinsically worthwhile and important can be influenced at the state and national level through policies and practice put in place by government officials, as well as state and local leaders. Leaders at the national, state, and local level should engage in actions that not only recognize that teachers are paramount to influencing life outcomes of individuals as well as influencing long term societal outcomes, but also validate these values, through taking tangible action. It seems likely that current teachers, as well as current high school and university students considering teaching as a future vocation, take notice of how teachers appear to be valued in the media, in public discourse, and in terms of how they are tangibly valued through financial support for public schools and in terms of remuneration for teachers. While a multifaceted approach is required, policy actions taken at the federal, state, and local level aimed at enhancing the profile, prestige, and remuneration afforded to teachers is likely to have a positive impact on teacher perception of the intrinsic value of teaching, leading to gains in teacher job satisfaction and teacher retention.

***Growth.*** The school district should seek to enhance meaningful opportunities for personal and professional growth for teachers in their positions. Of the motivator factors that were examined in the regression models, growth (opportunities for personal and professional growth in teaching positions) was the second strongest predictor of teacher propensity to leave the school ( $\beta = -.208$ ) (behind the work itself) and the second

strongest predictor of teacher propensity to leave the school district ( $\beta = -.207$ ) (behind the work itself). Of the motivator factors, growth was also the third strongest predictor of teacher overall job satisfaction ( $\beta = .161$ ) (behind the work itself and responsibility).

When the growth as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, the growth alone accounted for 32.5% of the variance ( $r^2 = .325$ ). When growth as a singular independent variable was regressed with the dependent variable of teacher propensity to leave the school, growth alone accounted for 14.9% of the variance ( $r^2 = .149$ ); when growth as a singular independent variable was regressed with the dependent variable of teacher propensity to leave the school district, growth alone accounted for 17.3% of the variance ( $r^2 = .173$ ). The level of influence on teacher propensity to leave exerted by this one factor alone, underscores why working to provide meaningful opportunities for teacher personal and professional growth should be an ongoing area of focus.

School and district leaders should seek to improve teacher perceptions of growth opportunities by ensuring that teaching materials, instructional strategies, and curriculum are available and communicated with teachers on an ongoing basis. School and district leaders should provide high-quality professional development opportunities that are targeted to meet school and district goals and objectives, and that reflect the needs that teachers identify related to their teaching experiences (McDiarmid & Larson, 2002). In particular, given the unique social and cultural dynamics of teaching in rural Alaska, growth opportunities should be related to cultural knowledge and provide support for teachers to integrate cultural knowledge into their teaching practice (Adams & Covey, 2018). School principals should also play an active role in ensuring that teachers set



meaningful goals as part of a professional plan, and that teachers reflect on their progress towards these goals as part of the revisiting and updating the teacher growth plan on an ongoing basis.

***District-Level Administrative Policies and Practices.*** Working towards the effective administrative policies and practices at the district level should also be an important area of focus. Of the hygiene factors that were examined in the regression models, district-level administrative policies and practices were found to be the strongest predictor of teacher overall job satisfaction ( $\beta = .266$ ), the strongest predictor of teacher propensity to leave the school ( $\beta = -.247$ ), and the strongest predictor of teacher propensity to leave the school district ( $\beta = -.239$ ).

When the district level administrative policies and practices as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, the district levels administrative policies and practices alone accounted for 49.7% of the variance ( $r^2 = .497$ ). When district level administrative policies and practices as a singular independent variable was regressed with the dependent variable of teacher propensity to leave the school, the district level administrative policies and practice alone accounted for 10.8% of the variance ( $r^2 = .108$ ). When district level administrative policies and practices as a singular independent variable was regressed with the dependent variable of teacher propensity to leave the school district, district level administrative policies and practices alone accounted for 10.0% of the variance ( $r^2 = .100$ ). The level of influence on teacher propensity to leave exerted by this one factor alone, underscores why working to ensure that effective district level administrative policies and practices are in place should be an area of focus.

The quantitative survey instrument was able to identify district level administrative policies and practices as a significant predictor of teacher overall job satisfaction and teacher propensity to leave, however, due to the nature of the instrument, it did not record specific feedback from teachers regarding the specific policies and practices that lead to satisfaction and dissatisfaction. School district leaders should seek to ensure that district level administrative policies and practices are responsive to teacher needs by surveying teachers about their perceptions of school administrative policies and practices, and seeking specific feedback regarding what teachers believe would support their effectiveness in their roles as professionals. This data can then be used to ensure that district policies and practices reflect the needs expressed by teachers.

District administrators should ensure that relationships are built and that communication channels are established with teachers early in the school year, and that communication channels remain open to the two-way flow of information from teachers to administrators and administrators to teachers throughout the school year. District leaders should both inform teachers of new administrative policies and procedures and remind teachers of existing administrative policies and procedures early in the school year, and then enforce administrative policies and procedures as written and communicated. Inconsistency in the application of policy and procedures can cause feelings of instability among teachers (Adams & Covey, 2018).

***Village Connectedness.*** The school district should strive to ensure that teachers achieve a feeling of village connectedness (connectedness and inclusion in the village in which they work and live). Of all of the rural Alaska job factors that were examined in the regression models, village connectedness was found to be the strongest predictor of

teacher overall job satisfaction ( $\beta = .308$ ), the strongest predictor of teacher propensity to leave the school ( $\beta = -.324$ ), and the strongest predictor of teacher propensity to leave the school district ( $\beta = -.315$ ).

When village connectedness as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, village connectedness alone accounted for 20.9% of the variance ( $r^2 = .209$ ). When village connectedness as a singular independent variable was regressed with the dependent variable of propensity to leave the school, village connectedness alone accounted for 14.3% of the variance ( $r^2 = .143$ ); and when regressed as a singular independent variable with the dependent variable of propensity to leave the school district, village connectedness alone accounted for 15.1% of the variance ( $r^2 = .151$ ). The level of influence on teacher overall job satisfaction and teacher propensity to leave exerted by this one factor alone underscores why working to ensure that teachers feel connected to and included in the villages where they live and work should be an area of focus.

Ingersoll (2001), citing Durkheim (1925/1961), Waller (1932), Parsons (1959), Coleman (1987), Grant (1988), and Rosenholtz (1989), noted that educational sociologists have long held that the existence of a sense of community cohesion among teachers, families, and students is critical for the success of schools. School district leaders, as well village entities within the villages in the school district, can seek to enhance teacher perceptions of connectedness and inclusion in the village in which they live and work. Supporting the development of and deepening relationships between teachers and Alaskan communities can give teachers a sense of trust and belonging that encourages them to remain in their positions; this is especially true in remote rural areas in the state with

working conditions that are unfamiliar to non-local teachers. Adams and Covey (2018)

observed with respect to rural Alaska's teachers:

Positive examples of engagement between teachers and the community include ensuring teachers are invited and encouraged to participate in community events and that community members are invited and encouraged to participate in school events. Lack of community engagement weakens the connection between the community and the school and challenges teacher efforts to reflect community values and culture in the classroom. Over time, it may even lead to teachers feeling isolated and disconnected, resulting in teacher turnover. (p. 15)

Some potential ways of enhancing teacher sense of belong in the rural villages in which they teach are developing support systems at the school level that help recent hires make friends in the community and acclimatize to their surroundings by matching them with a host family upon arrival in the village, having fellow teachers or a mentor teacher introduce them to local events and activities, and develop a support group of colleagues that frequently check in with new teachers as they transition into the village and their teaching placements (Vazquez Cano et al., 2019).

Given the historical context of public education in rural Alaska, potential skepticism among some community members about the benefits of mandatory school attendance, and the need to build a sense of relevance for schooling that goes beyond future employment opportunities, it is important to ensure that teachers are able to deliver classroom instruction that is perceived as relevant to students and the community. Ensuring the cultural relevance of instruction allows teachers to maximize their opportunities for success, as well as maximizes authentic connections to the students and community that they serve. While many teachers place high value on integrating local cultural knowledge into their curriculum and instruction, teachers may struggle with the implementation of these ideals. The school district should focus efforts on developing and

integrating local culture into curriculum materials and instructional plans, and following-up with teachers to ensure that they have acquired the prerequisite knowledge and skills to successfully integrate cultural knowledge into their classroom instruction (Adams & Covey, 2018).

***Significant Other Status.*** Significant other status was found to be a predictor of teacher propensity to leave. Having a significant other (husband, wife, boyfriend, girlfriend, or partner) living in the village in which the teacher lives and works was negatively correlated with teacher propensity to leave the school and school district. Of all of the teacher demographic variables that were examined in the regression models, significant other status was found to be the only predictor of propensity to leave the school, and the school district.

It is interesting to note that despite being a significant predictor of teacher propensity to leave the school and school district, significant other status was not found to be a significant predictor of teacher overall job satisfaction in sequential regression models. Additionally, when significant other status as a singular independent variable was regressed with teacher overall job satisfaction, it was not found to be a significant predictor ( $r^2 = .000$ ). Significant other status was the only job factor examined that was found to be a significant predictor of teacher propensity to leave the school or school district, but was not found to be a significant predictor of teacher overall job satisfaction.

Significant other status remained as a significant predictor of teacher propensity to leave the school and school district after hygiene variables, motivator variables, and rural Alaska job variables were included in regression models. When examining standardized  $\beta$  coefficients comparing effect sizes, significant other status ( $\beta = -.230$ )

was slightly more predictive of teacher propensity to leave the school than the work itself ( $\beta = -.227$ ) (the motivator factor that was most predictive of teacher propensity to leave the school); and significant other status ( $\beta = -.297$ ) was more predictive of teacher propensity to leave the school than school district administrative policies and practices ( $\beta = -.227$ ) (the hygiene factor that was most predictive of teacher propensity to leave the school).

While having strong  $\beta$  coefficients comparing effect sizes in the regression models discussed above, the amount of variance in teacher propensity to leave explained by significant other status as a singular factor was less than the other top predictors discussed above in this section. When significant other status as a singular independent variable was regressed with the dependent variable of teacher propensity to leave the school, significant other status only accounted for 5.9% of the variance ( $r^2 = .059$ ). When significant other status as a singular independent variable was regressed with the dependent variable of teacher propensity to leave the school district, significant other status alone accounted for 6.4% of the variance ( $r^2 = .064$ ). Significant other status being found to be a significant predictor of teacher propensity to leave the school and school district is a notable result that school district officials may want to consider in the teacher candidate recruitment process.

Like many school districts in rural Alaska, representatives from the Bering Strait School District attend job fairs across the nation and recruit a socially diverse group of teachers. The school district human resources department could use the results of this study with regard to significant other status to attempt to improve rates of future teacher retention. Some potential approaches for the human resources department would be

seeking to recruiting more married candidates, recruiting more teaching couples, or recruiting more candidates with a significant other that will accompany them to the village where they will live and work - to apply for teaching openings and take part in the interview process.

**Other Variables Impacting Teacher Overall Job Satisfaction.** In addition to the variables discussed above, several additional factors are noteworthy because while they were not consistent significant predictors of teacher propensity to leave, they were significant in predicting teacher overall job satisfaction, and therefore should be considered in efforts aimed at improving the quality of worklife for teachers (and to gain the associated benefits in motivation and productivity):

***Responsibility.*** Responsibility (defined as independence in completing work tasks, input into the tasks themselves, and reasonableness of assigned tasks) ( $\beta = .251$ ) was found to be the second strongest predictor of teacher overall job satisfaction of the motivator factors examined in the sequential regression model (behind the work itself). When responsibility as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, responsibility alone accounted for 39.2% of the variance ( $r^2 = .392$ ).

Finnigan and Gross (2007) studied the motivation and response to incentives and consequences experienced by teachers in Chicago. The study noted that while accountability policies caught teachers attention and focused them on goals, feelings of blame, pressure, or not being supported, caused teachers to question whether they could meet accountability expectations, decreased teacher morale, and increased teacher thoughts of leaving. Teachers were less motivated by the threat of consequences than to

the value that they placed on professional status and individual goals for students; teachers who felt less pressure to improve scores and were less fearful of losing their job, actually expressed a higher expectation that their school and students could improve (Finnegan & Gross, 2007).

Engaging in teaching in a public school under any circumstances involves a great deal of responsibility, to oneself to prepare to deliver viable instruction, one's students, one's colleagues, and the parents and the community that teachers serve. Most teachers well understand the great responsibilities that come with their chosen career and want to rise to meet these responsibilities, but they want to feel as though the expectations and responsibilities that are placed on them by school administrators and the community are reasonable, and that adequate time and supports are provided to teachers to allow them to be successful in meeting their responsibilities. When communicating expectations for professional growth, achievement, and responsibilities, school and district leaders should ensure that these expectations are reasonable, are instituted after seeking teacher input (insofar as this is practical), are communicated in a positive and respectful manner, and provide ongoing opportunities for teacher feedback.

With respect to rural Alaska's teachers, Adams and Covey (2018) observed: "Teacher success is increased when they have an accurate understanding of the work and the community environments prior to arrival" (p. 16). School district leaders should ensure that the responsibilities and challenges of teaching in rural Alaska are accurately communicated in the recruitment and hiring processes, and then work to provide targeted professional development in the onboarding process that prepares teachers for the



responsibilities and challenges of teaching, and of teaching within the unique context of rural Alaskan communities (Adams & Covey, 2018).

***Achievement.*** Achievement (defined as personal goal attainment) ( $\beta = .149$ ) was found to be the fourth strongest predictor of teacher overall job satisfaction of the motivator factors examined in the sequential regression model (behind the work itself, recognition, and growth). When achievement as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, achievement alone accounted for 43.8% of the variance ( $r^2 = .438$ ). While not found to be a significant predictor of teacher propensity to leave the school, or school district, achievement was found to be the top predictor of propensity to leave the teaching profession.

With respect to achievement and personal goal attainment, teachers want the independence and freedom necessary to pursue their instructional interests and advance their professional goals with respect to their position. School administrators should ensure that they provide flexibility, recognition, and encouragement allowing for teachers to assume greater responsibility in areas of interest or expertise to achieve their goals. Given the significant turnover rates in rural Alaska, and the significant number of beginning and early career teachers that are typically hired, it is particularly important for principals play a role in either mentoring young teachers to set and monitor progress towards professional goals as part of a growth plan, as well as in encouraging young teachers to pursue leadership opportunities through sponsoring after school programs, co-curricular and extracurricular activities, through developing and helping with activities and events in areas of interest or expertise, and through assuming roles of responsibility on school committees. Likewise, school administrators should play an active role in

encouraging veteran teachers to assume roles of responsibility in areas of expertise, and to serve as mentors to younger teachers who are entering the school district.

**Recognition.** Recognition (defined as recognition of accomplishments by peers and superiors, praise received for accomplishments) ( $\beta = .136$ ) was found to be the fifth strongest predictor of teacher overall job satisfaction of the motivator factors examined in the sequential regression model (behind the work itself, recognition, growth, and achievement). When recognition as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, recognition alone accounted for 31.6% of the variance ( $r^2 = .316$ ).

In order to most effectively motivate teachers, school level administrators should capitalize on opportunities to recognize and reward teachers for their achievements, accomplishments, and successes when they occur. Adams and Covey (2018), in their study of teachers in rural Alaska, found that while teacher respondents highly rated their personal teacher efficacy, this was not the case with respect to recognition and praise with respect to their accomplishments. Adams and Covey (2018) found that praise for rural Alaskan teachers is often included by principals in activities and events at the beginning of the year, but has a tendency to get overlooked as the school year wears on as other administrative responsibilities take priority. Potential examples of recognition and rewards provided to teachers for their accomplishments could come in the form of personal notes, thank you notes, acknowledgement in the school announcements or newsletter, or recognition in staff or department meetings. Focused efforts by leaders at the school level have the potential to positively influence teacher perceptions with regard to this key job satisfaction variable (Vazquez Cano et al., 2019).

***Job Impact on Personal Life.*** Job impact on personal life (defined as any aspects of the job that impact teacher personal life) ( $\beta = .199$ ) was found to be the second strongest predictor of teacher overall job satisfaction of the hygiene factors examined in the sequential regression model (behind district level administrative policies and practices). When job impact on personal life as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, job impact on personal life alone accounted for 40.3% of the variance ( $r^2 = .403$ ).

The job impact on the personal life of teachers is perhaps no more readily apparent than in rural Alaska. With most teachers leaving their lives and families in the lower 48 to move to a new state, community, and predominant culture, changes abound for new teachers. Further study is warranted to investigate specifically which aspects of the personal lives of teachers are most impacted by their jobs in rural Alaska. While some of the job impacts on the personal lives of teachers may be unavoidable as part of the process of moving to a new location, others potentially could be ameliorated through establishing purposeful social support systems for new teachers.

***Status.*** Status (defined as job-related social standing with respect to colleagues, other workers, and other professions) ( $\beta = .189$ ) was found to be the third strongest predictor of teacher overall job satisfaction of the hygiene factors examined in the sequential regression model (behind district level administrative policies and practices, and job impact on personal life). When status as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, status alone accounted for 31.7% of the variance ( $r^2 = .317$ ).

Finnegan and Gross (2007) studied the motivation and response to incentives experienced by teachers in Chicago. The study's findings documented that teachers highly valued their job-related social standing, were particularly sensitive about the potential of losing their status as a teacher, and were negatively affected by fear of losing their job. School and district administrators should consider implementing policies and practices aimed at structuring and encouraging opportunities for professional collaboration and reflection among teachers on their practices in order to encourage accountability within the organization, but should avoid heavy handed policies, practices, and communications that pressure teachers, or threaten professional self-image perceptions or teacher job status.

***Interpersonal Relations with Students.*** Interpersonal relations with students (defined as cooperation and/or conflict with students) ( $\beta = .126$ ) was found to be the fourth strongest predictor of teacher overall job satisfaction of the hygiene factors examined in the sequential regression model (behind district level administrative policies and practices, job impact on personal life, and status). When interpersonal relations with students as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, interpersonal relations with students alone accounted for 14.5% of the variance ( $r^2 = .145$ ), which was lower than than top variables impacting overall job satisfaction, but still a significant finding.

Teacher interpersonal relations with students can be one of the most rewarding aspects of teaching, and also potentially with respect to student discipline concerns, one of the most frustrating. School leaders can support the growth and development of positive interpersonal relationships between students and teachers by ensuring that

supports are in place to ensure that teachers are able to promote and maintain a positive, safe, and respectful learning environment. Administrators should ensure that student discipline procedures that reflect school and teacher needs are in place, clearly communicated, and consistently followed (Adams & Covey, 2018).

Additionally, teachers who invest their time and efforts in building relationships with students outside of the classroom through sponsoring after school programs, athletics, and extracurricular or co-curricular activities and events, should be adequately recognized and rewarded for their efforts. This includes ensuring that teacher compensation for these activities respects the important nature of the student-teacher relationships that are developed and is revisited on an ongoing basis to ensure that it maintains adequacy commensurate to annual rises in salary.

***Teacher Housing.*** Teacher housing (defined as the housing available to or assigned to teachers) ( $\beta = .126$ ) was found to be the second strongest predictor of teacher overall job satisfaction of the rural Alaska variables examined in the sequential regression model (behind village connectedness). When teaching housing as a singular independent variable was regressed with the dependent variable of teacher overall job satisfaction, teacher housing alone accounted for 18.6% of the variance ( $r^2 = .186$ ).

Teacher housing in the Bering Strait School District is limited due to the lack of housing units available in the villages in the school district. In many instances, teachers have few or no options other than to live in the school district provided housing. While teacher housing in the school district has improved over the past years, in many instances teachers are required to have share housing with other teachers, as assigned by school administrators. Housing assignments may be determined by needs for teachers with

families and may be subject to change from year to year based school staffing needs, which can result in teachers being asked to move from one housing unit to another. In some villages, running water and sewage is not available in some of the teacher housing, which may use a 'honey bucket' for toilet needs as a necessity, and make showering at the school a practical necessity. Additionally, while safe and adequate, teacher housing may not meet the expectations of new teachers coming from the lower 48 who are used to selecting their own housing. For these reasons, it is not surprising that teacher housing was found to be a predictor of teacher satisfaction and dissatisfaction. As the school district continues to update, build, and acquire more and better teacher housing, teacher housing may become less of a factor in influencing teacher job satisfaction.

#### **Other Findings and Recommendations.**

*Focusing on Key Job Variables.* In order to motivate teachers more effectively, principals and other school administrators should become more aware of the factors that satisfy and dissatisfy their personnel. The results of this study with respect to individual job satisfaction variables predicting overall teacher job satisfaction and teacher propensity to leave should be of particular interest as they provide specific direction for the formation of policies and practices. As discussed earlier in this chapter, in addition to supporting teacher perceptions of overall job satisfaction and the work itself, it is recommended that the school district focus efforts on supporting teacher perceptions with regard to growth opportunities, district level administrative policies and practices, and village connectedness due to these variables being found to be significant predictors of both teacher job satisfaction and propensity to leave. Additionally, it is recommended that school leaders work on enhancing perceptions of teacher responsibility, achievement,

recognition, job impact on personal life, status, interpersonal relations with students, and the school district provided housing, since these variables were found to be significant predictors of overall teacher job satisfaction. While recommendations were offered in these areas in this chapter, it is recommended that the school district collect additional data from teachers that can inform best practices with regard to the implementation of policies and practices.

*Benefits of Follow-up Teacher Surveys.* It is recommended that additional study and data collection at the district level explore how current policies and working conditions affect teacher perceptions in the critical areas mentioned above that were found to predict teacher overall job satisfaction and propensity to leave. Soliciting qualitative data through interviews or the use of open ended questionnaires may be useful to gain additional insight into teacher perceptions in these areas, and through which, ‘best practices’ in supporting teachers and enhancing teacher perceptions in the aforementioned areas of focus may be developed. Ultimately, the data that is collected from this effort can guide the development of policy and practice that reflects a greater appreciation for teacher needs, aimed at making teacher instructional roles more satisfying and enhancing teacher retention.

It is recommended that the school district develop a job satisfaction survey that can be completed by teachers on an annual basis. The school district can use the data that is collected to benchmark levels of job satisfaction and track changes over time. Conducting job satisfaction surveys on a regular basis will provide feedback that reflects the ongoing perceptions of the teachers that are currently employed in the school district. Surveying teachers and soliciting open ended feedback on a regular basis will assist those

who hire, supervise, and evaluate teachers to identify and address teacher needs and concerns and provide support.

While the electronic quantitative survey instrument used for this study was easy for participants to complete, and relatively approachable for the researcher to collect and interpret data, the survey instrument used for this study could be shortened for school district use and revised to allow for the addition of opinion questions or open ended questions that could provide additional insight into the role and experiences of teachers in the school district.

It may also be prudent for the school district to follow up with an additional questionnaire specifically aimed at teachers leaving the school district. This questionnaire (perhaps an open-ended format) would allow for leaving teachers to directly share reasons for their departure from the school district. While this study examined the relationship between teacher job satisfaction variables and teacher reported propensity to leave, it did not specifically target teachers who did leave. The school district may find that soliciting feedback from teachers who leave the school district would provide additional insight into factors that led to a decision to leave.

*Investigating and Addressing Personal and Social Needs of Teachers.* As Ingersoll (2001) observed, underlying much of the analysis of teacher turnover is the premise, drawn from the sociology of organizations, that high levels of employee turnover are tied to how well organizations function. While this may typically be assumed by researchers, it is worth recognizing that in certain organizations, locations, or environments it may be possible that high teacher turnover could be heavily influenced by non-organizational considerations.



Despite the Bering Strait School District traditionally recording substantial rates of teacher turnover, teachers, as a whole in the school district, reported being more than moderately satisfied with their job. This may suggest that teacher decisions to leave the school district (and in many instances the state of Alaska) may be influenced by factors apart from strictly job-related variables, such as social needs, and/or lifestyle needs, and/or distance from family, or other personal needs that may not be met in rural Alaska. One result of this study providing support for this possibility was the finding that teachers not having a significant other in the village that they live and work is a significant predictor of teacher propensity to leave. It is possible that there may be other such social factors not investigated in this study that influence teacher decisions to leave rural Alaska. Follow up study of teacher social and lifestyle needs outside of the work environment may shed further light on why teachers choose to leave their positions, which could in turn benefit educational leaders as they seek to provide support to teachers to maximize their job satisfaction and retention.

***Supporting First and Second Year Teachers in Their Transition to Rural Alaska.*** Another noteworthy observation is that the lowest levels of teacher job satisfaction were experienced by teachers in their first year of teaching in the district, while teachers in their first and second year in the school district were the most likely cohorts to leave the school and school district. These findings are consistent with the body of literature (discussed in Chapter II) which has identified lower job satisfaction and higher turnover rates among beginning teachers. These findings underscore the importance for school and school district leaders to redouble their efforts to ensure consistency in providing high quality on-boarding and orientation opportunities for new

teachers entering the school district, and the importance of school principals coordinating with school staff members and community members in welcoming new teachers into their schools and communities and in creating supports to help to acclimatize incoming teachers to a new lifestyle in rural Alaska.

***Recruiting More Alaskan Teachers and Alaska Native Teachers.*** Current rates of teacher retention and challenges involved in hiring and retaining teachers are based on the current teacher workforce in rural Alaska, which is predominantly prepared in and recruited from the lower 48 states. Alaska Native teachers stay longest in rural Alaskan communities, and teachers in Alaska completing teacher preparation programs in the state of Alaska have significantly lower turnover rates than teachers prepared outside the state of Alaska (DeFeo et al., 2018). There is a clear need to attract more Alaska Natives, and Alaskans generally, into the profession of teaching.

While the potential pool for hiring Alaska Native teachers is not a deep one, there are opportunities for the school district and the state of Alaska to invest resources in programs that support Alaska Natives who are interested in teaching. Paraprofessionals in rural Alaska possess local cultural knowledge, knowledge of the school and its operations (many with multiple years of experience), and possess deep roots in the community. The state and schools district should develop and invest in career ladder programs aimed at encouraging and supporting paraprofessionals to take college or university credits, ultimately completing teacher preparation programs, and successfully transitioning into the teaching profession. Tapping into this potential resource may not only provide for additional teacher supply, but also contribute to the hiring of teachers

with local insight and relationships that prove to be an asset in classroom instruction and lead to longer longevity in teaching positions.

Additionally, the state of Alaska should invest more resources in supporting Alaska Native students in their transition into their first year of college or university life (which for many incoming Alaska Native college students is the first time that they have spent significant time outside of the cultural context of their home village). Increasing graduation rates of Alaska Native students could help to expand the pool of future teachers that are more likely to remain in rural Alaskan schools. At the state and local level, investing human and financial resources in organizations such as Future Educators of Alaska (FEA) can serve to inspire college bound youth to seek a career in teaching, as well as help develop student motivation and direction with regard to placement after graduation (perhaps even in the student's home school district or village).

*Collaborative Efforts between Educators and the Community.* School improvement efforts should include collaborative efforts between teachers, parents, and community members to develop consensus on school goals and on student academic and behavioral expectations. McDiarmid and Larson (2002) observed with regard to schools in rural Alaska:

Problems with behavior and motivation can often be traced to inconsistent messages coming from home and school . . . research in Alaska has shown that when parents and educational professionals agree on values, and when students receive the same messages about appropriate behavior and learning goals at home and at school, students are unable to play one side off against the other and must bear down and do their work. (p. 64)

Most teachers not only originate from outside the community in which they teach, but also from outside the state of Alaska. While teachers, to varying degrees, may be aware of the cultural and historical context of schooling in rural Alaska, they should make a

concerted effort to hear what parents and community members want from their school. Schools should extend invitations to parents and community members to attend school-community meetings to discuss setting common goals and expectations for students (McDiarmid & Larson, 2004).

### **Recommendations for Future Research**

This study has the potential to be duplicated to fit other school districts in rural Alaska or elsewhere in the nation. While this study was focused on the Bering Strait School District in rural Alaska, it is important for other school districts in rural Alaska and elsewhere in the nation to take note of the results and findings of the study and consider adapting or replicating portions of this study to meet needs in other schools or districts of rural Alaska, or elsewhere in the state or nation.

This results of this study indicated that in addition to overall job satisfaction and the work itself, teacher perceptions with respect to growth opportunities, district level administrative policies and practices, and village connectedness influenced both teacher job satisfaction and propensity to leave. Additionally, the results indicated that teacher responsibility, achievement, recognition, job impact on personal life, status, interpersonal relations with students, and the school district provided housing were significant predictors of overall teacher job satisfaction. The researcher recommends additional study and data collection exploring how the current policies and working conditions affect teacher perceptions in these critical areas to determine ‘best practices’ in supporting teachers and enhancing teacher job satisfaction and retention.

The results of this study indicated that having a significant other (husband, wife, boyfriend, girlfriend or partner) living in the village in which the teacher lives and works

significantly reduces teacher propensity to leave their position. Future research may want to examine this unique dynamic that is applicable to rural Alaska and may be applicable to other remote rural areas in the nation where low populations limit opportunities for social interactions and developing relationships. It is possible that there may be other such social factors, lifestyle needs, or other personal needs that may not be met in rural Alaska. Follow up study of teacher social and lifestyle needs outside of the work environment may shed further light on why teachers choose to leave their positions, which could in turn benefit educational leaders as they seek to provide support to teachers to maximize their job satisfaction and retention.

In addition to the quantitative components utilized of this study, incorporating qualitative components in future research would yield valuable information from teachers in rural Alaska. Interviewing teachers or providing a questionnaire allowing for open ended responses would allow researchers to collect detailed data that was not accessible by the survey instrument used in this study. The use of qualitative methods may provide valuable information that can be used to expand upon the results and findings of this study.

## **Conclusion**

The substantial rates of teacher turnover experienced in most of rural Alaska's school districts create many challenges. Great human and financial investments must be made to recruit new teachers, train new teachers, acclimatize new teachers to their geographical and cultural surroundings, and help new teachers to develop relationships with students, parents, and the community that will allow them to be successful. Each year, there is a wealth of educational, cultural, and community knowledge and expertise

that leaves rural Alaskan school districts (and predominantly, the state of Alaska), leaving successors to attempt to fill the void, while adjusting to a new state, lifestyle, culture, and in many cases, profession.

The teacher shortages that many rural Alaska school districts face are not likely to vanish in the long-term without major commitments being made at the state, school district, and community levels to address the need. While graduating more qualified teachers at state higher education institutions should remain a goal, given the nature of the shortfall, it is not realistic that the state can ‘graduate’ its way out of current teacher shortages. As McDiarmid and Larson (2002) observed:

Policymakers must directly address the conditions that cause high rates of turnover and difficulties in recruiting in some districts, if all students in all Alaska’s schools are to have the high quality opportunities to learn that they need and deserve. (p. 65)

This project was born out of a deep interest and investment in education in rural Alaska fostered by lived experience on the part of the researcher as an educator in the Bering Strait School District from 2009-2017. It is the intent of the researcher, that through this study, teacher job satisfaction and propensity to leave in the context of rural Alaska can better be understood. It is intended that the results of this study will be made available to inform policy and practice in rural Alaska, contribute to the body of theoretical research on teacher job satisfaction and propensity to leave, and inform future studies that may be undertaken.

The results of this study indicated that both motivator and hygiene variables contribute to teacher job satisfaction in the Bering Strait School District in rural Alaska. While the dual-factor or bifurcated nature of motivation-hygiene theory was not upheld (as Herzberg postulated), the results of this study indicated that a number of the

motivation-hygiene variables were highly relevant constructs in both predicting overall teacher job satisfaction, and in predicting teacher propensity to leave. The results of this study add to the body of research providing support for the use of the motivation-hygiene theory as a theoretical lens in the formulation of future research projects in the context of PK-12 public education.

The results of this study indicated that teacher perceptions of overall job satisfaction, the work itself, growth opportunities, district level administrative policies and practices, and village connectedness were significant in predicting both teacher indicated overall job satisfaction and teacher indicated propensity to leave their positions. Researchers and practitioners should take note of these variables and highly prioritize them in the formulation of policies and practices intended to maximize teacher both teacher job satisfaction and teacher retention.

While not consistent predictors of teacher propensity to leave, the variables - responsibility, achievement, recognition, job impact on personal life, status, interpersonal relationships with students, and teacher housing - were found to be significant in influencing teacher overall job satisfaction. Consequently, these variables are also worthy of the attention in efforts aimed at improving the quality of worklife for teachers (with the potential to gain associated benefits related to teacher motivation and productivity).

With respect to teacher demographics, no teacher demographic factor was found to consistently significantly influence teacher overall job satisfaction in the regression models. The noteworthy result with respect to teacher demographics was the finding that not having a significant other living in the village in which a teacher lives and works was

a significant predictor of teacher propensity to leave the school, and the school district. Significant other status is of unique applicability in rural Alaska settings where opportunities for developing social relationships and partnerships upon arrival in rural Alaska can be more limited due to small populations and isolation from larger population centers. This may be an area of fertile ground for future research, and prove to be a consideration for human resources personnel in rural Alaska districts when recruiting potential applicants to the teacher pool.

While teacher experience in the school district was not a consistent statistically significant predictor of overall teacher job satisfaction or propensity to leave in the regression models, the lowest levels of teacher job satisfaction were reported by teachers in their first year of teaching in the district, while teachers in their first and second year in the school district were the cohorts who reported being the most likely to leave the school and school district. These findings are consistent with the body of literature that has found lower job satisfaction and higher turnover rates among beginning teachers. These findings underscore the importance for school district leaders to redouble their efforts to ensure consistency in providing high quality on-boarding and orientation opportunities for new teachers entering the school district, and the importance of school principals, school staff members, and community members welcoming new teachers into their schools and communities and creating supports to help to ease new teacher transitions to a new lifestyle in rural Alaska. Through these efforts, teacher job satisfaction and retention rates among the cohort of teachers most likely to leave could potentially be enhanced.



Despite the school district traditionally recording substantial rates of teacher turnover, teachers as a whole in the school district reported being more than moderately satisfied with their job. This may suggest that teacher decisions to leave the school district (and in many instances the state of Alaska) may be influenced by factors that exist apart from workplace considerations, such as social needs, and/or lifestyle needs, and/or distance from family, or other personal needs that may not be adequately met in rural Alaska. Follow up study related to teacher social and lifestyle needs outside of the work environment may shed further light on why teachers choose to leave their positions, which could in turn benefit educational leaders as they seek to provide support to teachers to maximize their job satisfaction and retention.

Understanding the level of job satisfaction of teachers and identifying the propensity of teachers to leave their positions are initial steps for any school or school district in addressing teachers shortages by retaining qualified teachers. The results of this study will be shared with the administration in the Bering Strait School District in hopes of creating a better understanding of the job satisfaction variables that influence teacher overall job satisfaction and propensity to leave. This study can readily be replicated to fit the needs of other school districts in the state of Alaska or elsewhere in the nation. The items on the survey questionnaire align with a proven theoretical framework based on a substantial body of prior job satisfaction research. The research structure of this study allows for other schools, school districts, educational departments, or entities to customize future research to meet the specific contextual needs of their organizations.

It is the hope of the researcher that the results of this study will cause educational leaders to review their current policies and practices related to teachers. The opportunity to utilize the results of this study (and those of future related studies) to improve teacher job satisfaction and retention ultimately falls to educational leaders in the school district, leaders in other school districts, and policymakers and researchers at the state and national level. If educational leaders have not been surveying teachers concerning their job satisfaction, it is hoped that this research will underscore the value in doing so. It is hoped that this research will add value to the scholarly conversation regarding the important role that teacher job satisfaction variables play in influencing teacher retention and turnover, as well as provide an impetus for educational leaders and policymakers to recognize this connection, collect data with respect to teacher job satisfaction and retention, and to utilize this data in the development of strategic policies and practices.

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**APPENDIX A**

**Definition of Frequently Used Terms**

### **Definition of Frequently Used Terms**

***Affect (noun)***- an emotional state or feeling

***Attrition***- When a teacher leaves the profession entirely for reasons other than retirement.

***Bering Strait School District***- a PK-12 public school district located in rural Western Alaska that serves 1,700 students and is made up of fifteen (15) schools located in fifteen villages across the school district - from the Norton Sound in the southern part of the district to the Chukchi Sea in the northern part of the district.

***Bush Alaska***- Isolated rural areas of Alaska that are off the road system in Alaska and accessible only by small plane or boat.

***Remote Rural***- Census defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster (National Center for Education Statistics, 2007, p. 122).

***Hygiene Factors (Demotivators, Dissatisfiers)***- Extrinsic factors that surround a job or position, but are not a direct part of the job or position. Hygiene factors include supervision, interpersonal relations, physical working condition, salary, administrative policies, benefits and job security (Herzberg et al., 1959).

***Intention to Leave/Turnover Intention***- A conscious and calculated willingness to leave an organization that involves thoughts of quitting

***Inupiat***- Group of indigenous Eskimo peoples who live in Western and Northern Alaska from the areas from the Norton Sound to the Canada-Alaska border on the North Slope. The northern-most dwelling people in Alaska, who traditionally speak the Inupiaq language.

***Inupiaq-*** The traditional language of the Inupiat people which is composed of many local and regional dialects.

***Job Satisfaction or Job Dissatisfaction-*** An overall feeling (positive or negative feelings) towards certain aspects of a person's job or position.

***Migration-*** when a teacher leaves his or her current teaching position for a new teaching position in another school district

***Motivation-Hygiene Theory (M-H Theory, Two-Factor Theory, Dual-Factor Theory)-***

A theory of job satisfaction and worker motivation developed by Frederick Herzberg that identifies two separate independently operating factors that contribute to overall job satisfaction and worker motivation - hygiene factors and motivator factors.

***Motivator Factors (Satisfiers)-*** Intrinsic factors that include the details of what a person does on the job. Motivators include the work itself, recognition, achievement, responsibility and advancement factors (Herzberg et al.,1959).

***Motivation-*** The process used by an individual to develop, carryout, and sustain behaviors.

***New Teacher-*** A teacher who has taught in the school district for less than three complete school years.

***Propensity to Leave-*** The likelihood an employee will leave their current employment.

***Retirement-*** When a teacher ends his or her teaching professional career due to age or years of service

***Road System-*** Area of the state of Alaska that is accessible by road and where travel by people and transportation of goods by automobile is viable



***Subsistence-*** Cultural activities related to hunting or gathering food and supplies that contribute to survival.

***Teacher-*** An employee of the Bering Strait School District who holds a teaching position and is endorsed to teach by the state of Alaska.

***Tenured Teachers-*** Teachers who have taught in the school district for at least one day more than three complete school years.

***Transfer-*** When a practicing teacher moves to a new subject area

***Yupik-*** Group of indigenous Eskimo peoples of Western Alaska who traditionally speak the Yupik language.

**APPENDIX B**

**Permission Letter for Teacher Survey**

## Permission Letter for Teacher Survey

### Bering Strait School District

P.O. Box 225 • Unalakleet, Alaska • 99684 • (907) 624-3611 • Fax 624-3099

Dr. Bobby Bolen, Superintendent

907-624-4261 • [bbolen@bssd.org](mailto:bbolen@bssd.org)

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January 6, 2020

RE: Matthew Palmer IRB Approval

To Whom It may Concern:

It is with great pleasure that I can approve and grant permission to Matthew Palmer, to conduct his Teacher Survey in the Bering Strait School District.

I approve Mr. Palmer emailing BSSD teachers to ask for their voluntary participation in taking the survey.

If you have any questions, please feel free to contact me at the numbers listed above.

Respectfully,

Robert Bolen, Ed.D.  
Superintendent

**APPENDIX C**

**Institutional Research Board (IRB) Approval of the Study**



February 9, 2020

Matthew Palmer  
Department of Educational Administration

Nick Pace  
Department of Educational Administration  
TEAC 141C UNL NE 685880360

IRB Number: 20200220094EX  
Project ID: 20094  
Project Title: Predicting Teacher Job Satisfaction and Propensity to Leave in the Bering Strait School District in Rural Alaska Through the Application of Herzberg's Motivation-Hygiene Theory

Dear Matthew:

This letter is to officially notify you of the certification of exemption of your project for the Protection of Human Subjects. Your proposal is in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects at 45 CFR 46 2018 Requirements and has been classified as exempt. Exempt categories are listed within HRPP Policy #4.001: Exempt Research available at: <http://research.unl.edu/researchcompliance/policies-procedures/>.

- o Date of Final Exemption: 02/09/2020
- o Review conducted using exempt category 2b at 45 CFR 46.104
- o Funding (Grant congruency, OSP Project/Form ID and Funding Sponsor Award Number, if applicable): N/A

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:

- \* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
- \* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
- \* Any protocol violation or protocol deviation
- \* An incarceration of a research participant in a protocol that was not approved to include prisoners
- \* Any knowledge of adverse audits or enforcement actions required by Sponsors
- \* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
- \* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
- \* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board.

If you have any questions, please contact the IRB office at 402-472-6965.

Sincerely,

Becky R. Freeman, CIP  
for the IRB



**APPENDIX D**

**Teacher Job Satisfaction Survey Consent Form**

### **Teacher Job Satisfaction Survey Consent Form**

This is a research study that aims to understand the job satisfaction of teachers in the Bering Strait School District in rural Alaska. You are invited to participate in this study because you are employed as a teacher in the Bering Strait School District.

Participation in this study will require approximately 10 minutes of your time. If you electronically consent to participate, you will continue on to the online survey discussing your job satisfaction as a teacher in the Bering Strait School District.

The survey will consist of 32 items with multiple choices. Items 1-22 ask about aspects of teacher job satisfaction, items 23-26 ask about teacher likelihood to leave their positions, and items 27-32 ask about demographic characteristics of teachers.

There are no known risks or discomforts associated with this research. If you should feel uncomfortable while taking the survey, please feel free to discontinue the survey.

This survey will collect data to better understand the level of job satisfaction that teachers experience in the school district and which factors contribute most to satisfaction and dissatisfaction among teachers as well as contribute to the greater body of knowledge in the field of education.

This study will involve the collection of private information. Any information obtained which could identify you will be kept strictly confidential. Information provided by you could be used or distributed to another researcher for future research studies without an additional informed consent from you. In this event, identifiers (name, dates, etc.) will be removed prior to being distributed. Data obtained in this study will be included in a dissertation, may be shared publicly, published in scholarly or professional journals and publications, presented at conferences, and shared with educational practitioners, but the data will not be attributable to any individual participating in the study.

In compensation for participation in this research, study participants will receive a \$10 Amazon gift card that will be emailed to the email address that is provided within 48 hours after completion of the study. The only condition for participation in this study is that you are a teacher in the Bering Strait School District and are at least 19 years of age.

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. You may contact the investigator at any time by phone at (308) 750-6330 or by email at [matthew.palmer@huskers.unl.edu](mailto:matthew.palmer@huskers.unl.edu) to ask any questions that you may have. If you have questions concerning your rights as a research subject that have not been answered by the investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board by telephone at: (402) 472-6965.

You are free to decide not to participate in this study or to withdraw at any time without it adversely affecting your relationship with the investigators, the University of Nebraska-Lincoln, or the Bering Strait School District. Your decision will not result in any loss of benefits to which you are otherwise entitled.

You are voluntarily making a decision whether or not to participate in this research study. Your electronic consent certifies that you have decided to participate having read and understood the information presented. If you would like a copy of this consent form, please print now.

***Consent of Participant:***

**I am at least 19 years of age, a teacher in the Bering Strait School District, and I fully understand and consent to the conditions above:**

\_\_\_\_\_ Yes

\_\_\_\_\_ No



**APPENDIX E**

**Survey Questionnaire**

## Survey Questionnaire

How satisfied or dissatisfied are you with the following elements of your teaching position in the Bering Strait School District? Choose the answer that best represents your response.

**1. Achievement (personal goal attainment)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**2. District-Level Administrative Policies and Practices (administrative policies and practices at the school district level)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**3. Advancement (opportunities for promotion or change in status)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**4. Benefits (insurance, sick and personal days, holiday time-off, etc.)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**5. Growth (opportunities for personal and professional growth in your position)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**6. Interpersonal Relations with Colleagues (cooperation and/or conflict with other teachers)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**7. Interpersonal Relations with Parents/Guardians (cooperation and/or conflict with the parents and guardians of students)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**8. Interpersonal Relations with Students (cooperation and/or conflict with students)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**9. Interpersonal Relations with Supervisors (cooperation and/or conflict with your supervisors/administrators)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**10. Job Security (how secure you feel that you will be able to continue in your position)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**11. Job Impact on Personal Life (any aspects of the job that affect your personal life)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**12. Recognition (recognition of accomplishments by peers and superiors, praise received for accomplishments)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**13. Responsibility (independence in completing work tasks, input into the tasks themselves, and reasonableness of assigned tasks)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**14. Salary (amount of your salary, your salary compared to others who do similar work, top salary available)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**15. School-Level Administration and Supervision (fairness, effectiveness, and support of your immediate supervisor)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**16. Status (job-related social standing with respect to colleagues, other workers, and other professions)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**17. Working Conditions (physical environment of school building/classroom, adequacy of materials, supplies, technology, and resources)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**18. The Work Itself (performing your work is intrinsically worthwhile and important)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**19. Your Housing (the housing assigned/available to you)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**20. Village Amenities (the amenities available in the village you live in)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**21. Village Connectedness (your connectedness to and inclusion in the village that you live in)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**22. How would you rate your overall feeling about your job? (overall job-related satisfaction or dissatisfaction)**

Very satisfied  
Moderately satisfied  
Slightly satisfied  
Slightly dissatisfied  
Moderately dissatisfied  
Very dissatisfied

**23. What is the likelihood that you will enter RETIREMENT before the beginning of the 2020-2021 school year?**

Very likely  
Moderately likely  
Slightly likely  
Slightly unlikely  
Moderately unlikely  
Very unlikely

**24. Considering your overall satisfaction and dissatisfaction with your job, what is the likelihood that you will leave your CURRENT SCHOOL in the Bering**

**Strait School District at the conclusion of the 2019-2020 school year (before the start of the 2020-2021 school year)?**

Very likely  
Moderately likely  
Slightly likely  
Slightly unlikely  
Moderately unlikely  
Very unlikely

**25. Considering your overall satisfaction and dissatisfaction with your job, what is the likelihood that you will leave the BERING STRAIT SCHOOL DISTRICT at the conclusion of the 2019-2020 school year (before the start of the 2020-2021 school year)?**

Very likely  
Moderately likely  
Slightly likely  
Slightly unlikely  
Moderately unlikely  
Very unlikely

**26. Considering your overall satisfaction and dissatisfaction with your job, what is the likelihood that you will leave the PROFESSION OF TEACHING at the conclusion of the 2019-2020 school year (before the start of the 2020-2021 school year)?**

Very likely  
Moderately likely  
Slightly likely  
Slightly unlikely  
Moderately unlikely  
Very unlikely

**27. What is your gender?**

Female  
Male



**28. What is your age?**

22-25

26-29

30-34

35-39

40-49

50-59

60+

**29. What is your highest education level attained?**

Bachelor's degree

Master's degree or above

**30. How many school years have you been a teacher in the Bering Strait School****District? (i.e. if this is your first year in BSSD, answer '1' year)**

1

2

3

4

5

6-9

10+

**31. Do you have a significant other living in your village?**

No

Yes

**32. What grade level do you teach?**

Elementary (grades PK-6)

Secondary (grades 7-12)

Both

**APPENDIX F**

**Compensation for Completing Survey Questionnaire**

### **Compensation for Completing Survey Questionnaire**

Thank you for completing the survey! To receive your \$10 Amazon gift card, please copy and paste the link listed below into your web browser and then enter your email address when prompted.

<https://www.surveymonkey.com/r/BSSDteachersatisfactionsurveyamazongiftcard>

### **\$10 Amazon Gift Card**

### **Compensation for BSSD Teacher Job Satisfaction Survey**

Thank you for completing the survey! To receive your \$10 Amazon gift card, please enter your email address in the grey box below and click the 'done' button.

If you do not want a gift card, do not enter your email address.

Email addresses will be stored until the completion of the doctoral dissertation and graduation (with an anticipated date of August 15, 2020). Email addresses will only be used by the researcher for the purpose of sending the \$10 Amazon gift card and will not be shared with other parties.

Please double check the accuracy of the email address that you enter in the box and click the 'Done' button.

**APPENDIX G**

**Survey Initial Email**

## Survey Initial Email

Dear BSSD Teachers,

I am writing to ask for your help in collecting data about the job satisfaction of teachers in the Bering Strait School District. This data will be used in a study for my dissertation in progress towards a Doctor of Education degree in educational administration at the University of Nebraska-Lincoln. You have been selected to participate in this study because you are currently employed as a teacher in the Bering Strait School District.

Your participation in this survey is very much appreciated and valued. After completing the survey, you will receive a \$10 Amazon gift card in appreciation of your time and your contribution.

Participation in this survey is not required and is voluntary. The survey will take approximately 10 minutes to complete. Your responses on the survey will remain anonymous. Your individual answers will NOT be reported or shared - no answers of individuals will be reported - only aggregated data (group data) will be reported. The aggregated data (group data) of this survey (NOT the responses of individuals) will become part of a doctoral dissertation, may be made publicly available, may be published in journals, and may be shared with educational practitioners. Again, your answers will be anonymous and only aggregated data (group data) will be reported.

If you have questions about this survey, please contact the director of the study, Matthew Palmer, by email at: [matthew.palmer@huskers.unl.edu](mailto:matthew.palmer@huskers.unl.edu) or by phone at: (308) 750-6330. This survey has been approved by the Institutional Review Board (IRB) at the University of Nebraska-Lincoln and if you have questions about your rights as a participant, you may contact them at (402) 472-6965.

Your \$10 Amazon gift card will be emailed to you within 48 hours after the completion of the survey. If for any reason you do not receive your Amazon gift card within this timeframe, please email the study director by email at: [matthew.palmer@huskers.unl.edu](mailto:matthew.palmer@huskers.unl.edu) or contact by phone at (308) 750-6330.

To complete the survey, please click on the link below and follow the directions:

<https://www.surveymonkey.com/r/bssdteacherssatisfactionsurvey>

Your time and insights are greatly appreciated. It is my hope that you enjoy the survey and I look forward to receiving your response.

Thank You,

Matthew Palmer, Ed.S.

**APPENDIX H**

**Survey Follow-up Email**

### Survey Follow-up Email

Dear BSSD Teachers,

Last week, you received an email from me asking you to complete a survey aimed at collecting data on the job satisfaction of teachers in the Bering Strait School District. This data will be used in a study for my dissertation in progress towards a Doctor of Education degree in educational administration at the University of Nebraska-Lincoln.

For those of you that already completed this survey, thank you! Your assistance in this survey is appreciated and will ensure that your views are heard.

For those of you that have not completed the survey, your assistance is greatly appreciated. The best way to understand the needs of teachers is to hear directly from them.

When you have completed the survey, within 48 hours, you will receive a \$10 Amazon gift card via the email address that you provide in appreciation of your time and your contribution.

Participation in this survey is not required and is voluntary. The questions on the survey will take approximately 10 minutes to complete. Your responses on the survey will remain anonymous. Your individual answers will NOT be reported or shared - no answers of individuals will be reported - only aggregated data (group data) will be reported. The aggregated data (group data) of this survey (NOT the responses of individuals) will become part of a doctoral dissertation, may be made publicly available, may be published in journals, and may be shared with educational practitioners. Again, your answers will be anonymous and only aggregated data (group data) will be reported.

If you have questions about this survey, please contact the study director, Matthew Palmer, by email at: [matthew.palmer@huskers.unl.edu](mailto:matthew.palmer@huskers.unl.edu) or by phone at: (308) 750-6330. This survey has been approved by the Institutional Review Board (IRB) at the University of Nebraska-Lincoln and if you have questions about your rights as a participant, you may contact them at (402) 472-6965.

Your \$10 Amazon gift card will be emailed to you at the email address that you have provided in the survey within 48 hours after the completion of the survey. If for any reason you do not receive your Amazon gift card within this timeframe, please email the study director by email at: [matthew.palmer@huskers.unl.edu](mailto:matthew.palmer@huskers.unl.edu) or contact by phone at (308) 750-6330.

To complete the survey, please click on the link below and follow the directions: <https://www.surveymonkey.com/r/bssdteacherssatisfactionsurvey>

Your time and insights are greatly appreciated. I hope you enjoy the survey and I look forward to receiving your response.

Thank You,

Matthew Palmer, Ed.S

**APPENDIX I**

**Survey Final Contact Email**



### Survey Final Contact Email

Dear BSSD Teachers,

Two weeks ago, you received an email from me asking you to complete a survey aimed at collecting data on the job satisfaction of teachers in the Bering Strait School District. This data will be used in a study for my dissertation in progress towards a Doctor of Education degree in educational administration at the University of Nebraska-Lincoln.

For those of you that already completed this survey, thank you! Your assistance in this survey is appreciated and will ensure that your views are heard.

For those of you that have not completed the survey, your assistance is greatly appreciated. The best way to understand the needs of teachers is to hear directly from them.

When you have completed the survey, within 48 hours, you will receive a \$10 Amazon gift card via the email address that you provide in appreciation of your time and your contribution.

Participation in this survey is not required and is voluntary. The questions on the survey will take approximately 10 minutes to complete. Your responses on the survey will remain anonymous. Your individual answers will NOT be reported or shared - no answers of individuals will be reported - only aggregated data (group data) will be reported. The aggregated data (group data) of this survey (NOT the responses of individuals) will become part of a doctoral dissertation, may be made publicly available, may be published in journals, and may be shared with educational practitioners. Again, your answers will be anonymous and only aggregated data (group data) will be reported.

If you have questions about this survey, please contact the study director, Matthew Palmer, by email at: [matthew.palmer@huskers.unl.edu](mailto:matthew.palmer@huskers.unl.edu) or by phone at: (308) 750-6330. This survey has been approved by the Institutional Review Board (IRB) at the University of Nebraska-Lincoln and if you have questions about your rights as a participant, you may contact them at (402) 472-6965.

Your \$10 Amazon gift card will be emailed to you at the email address that you have provided in the survey within 48 hours after the completion of the survey. If for any reason you do not receive your Amazon gift card within this timeframe, please email the study director by email at: [matthew.palmer@huskers.unl.edu](mailto:matthew.palmer@huskers.unl.edu) or contact by phone at (308) 750-6330.

To complete the survey, please click on the link below and follow the directions:  
<https://www.surveymonkey.com/r/bssdteacherssatisfactionsurvey>

Your time and insights are greatly appreciated. I hope you enjoy the survey and I look forward to receiving your response.

Thank You,

Matthew Palmer, Ed.S.