JOB SATISFACTION OF MISSOURI HIGH SCHOOL PRINCIPALS

AS MEASURED BY THE
MINNESOTA SATISFACTION QUESTIONNAIRE

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DEDICATION

This dissertation is dedicated to people who have impacted and supported me throughout my life and during this journey to finally become a doctor, even if it wasn’t the kind I originally planned to be. First, I would like to recognize two men who taught me important life lessons. Those men are Russell Karn, who gave me an example of how to live your life when you are faced with adversity, and Donald Harter, who gave me an example of how to live your life serving others. I don’t know if either of you ever realized the positive impact you had on my life, this is my small way of publicly acknowledging it. This is also dedicated to my parents, for impressing upon me at an early age that “anything worth doing is worth doing well”. Finally, to my wife and kids, for the willingness put up with the time that was stolen from them, the encouragement to push me, and the patience to let me finish. This degree is dedicated to Alex and Alison, for being wonderful kids and the true joys of my life, and to my soul mate, best friend, and the love of my life, Kimberly. Words aren’t enough to tell you how much I love you all.
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ABSTRACT

There is a lack of information regarding job satisfaction among high school principals in the state of Missouri. This study looked at this problem and is based on a previous study of middle school principals in Virginia completed by Newby (1999) and then replicated on high school principals in Virginia by Stemple (2004). For this study, 108 high school principals in the state of Missouri responded to an internet survey using the Minnesota Satisfaction Questionnaire (MSQ) to explore the specific variables of age, gender, salary level, number of assistant principals, school size, AYP status, education level, and years as a principal to determine which variables may or may not contribute to job status. A discriminant functional analysis (DFA) was conducted to determine the extent, if any that the variables play a role in explaining the level of satisfaction of principals in the study.

The findings of this study indicate that high school principals in Missouri are generally satisfied with their jobs. The principals that responded were most satisfied with social service, achievement, and activity and were least satisfied with advancement, compensation, and security. The DFA indicated that that principals felt less satisfaction with the ability to implement new ideas when they had a salary >$100000 and were at schools with >2000 students. Principals felt the most satisfaction with the ability to implement new ideas when they had a salary of $75000-$100000 and were at a school with 1001-1400 students. DFA also indicated that principals felt less satisfaction with external working rewards if they had zero or one assistant principals and made less than $75000. Results from this study are useful as they add to a limited body of knowledge about job satisfaction among high school principals in Missouri.
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CHAPTER ONE

INTRODUCTION

Numerous researchers have documented the principal as a key component in the overall effectiveness of schools (Dwyer, Barnett, & Lee, 1987; Edmunds, 1979; Schmuck, 1993; Hallinger & Heck, 1996; Thomas & Vornberg, 1991). Others have focused on the relationship between the principal’s behavior and influence and the desired school outcomes (Stoll & Fink, 1996; Harris & Hopkins, 2000; Teddlie & Reynolds, 2000). The role of principal has become more and more complex as a principal must work to deal with the needs of various stakeholders including students, parents, staff members, district personnel, and community members. Increasing pressures from mandated high-stakes tests and the pressure to meet Adequate Yearly Progress (AYP) under federal guidelines have caused an already complex job to become even more challenging. The principal’s role has been described as an “impossible job” (Archer, 2004). Numerous authors have touted the importance of the principal in effective schools (Brandt, 1987; Cusick, 2003; English & Hill, 1990) and the diversity of those with a vested interest in the performance of the principal has caused the role of the principal to draw major attention in this era of accountability. However, there is a lack of information regarding the variables that impact the overall job satisfaction of high school principals.

Significance of Satisfaction in the Principalship

Today’s principal faces numerous complex tasks, including planning for effective professional development, guiding teachers, handling discipline, creating a school-wide vision, being an instructional leader, coordinating pupil transportation, and attending school events, co-curricular events, and athletic events, as well as many other details that
come with supervising a school (Goldberg, 2001; Richard, 2000). Increased complications of the job due to changing demographics, teacher shortages, increased technology demands, and the expectations to improve test scores have combined to make the job of principal even more discouraging (Quinn, 2002; Schiff, 2002). Leaders of public educational programs are having difficulties filling the vacancies of the principalship as a result of these complex tasks (Sandham, 2001) and the caliber of applicants is disappointing (Grimmett & Echols, 2000). According to Adams (1999), erosion of authority to effect change, escalating expectations of accountability, a perceived lack of support, and a stressful political environment are among the factors that have caused high school principals to consider leaving the field entirely or to request classroom teaching assignments. Research indicates that potential principal candidates now expect to be unsatisfied in the areas of vacation and family time and hours worked and expect the job to adversely affect spouses and job security (Winter, Rinehart, & Keedy, 2004).

The baby boomer generation bubble is also adding to the anticipated shortage of principal applicants (Olson, 2008). The looming wave of retiring baby boomers who are principals threatens to create major shortages in required skills and staffing levels in many organizations, at multiple organization levels (Bechet, 2008). In 2001, the Association of California School Administrators estimated that 45 percent of administrators would retire within seven years (Lovell, 2004). Recently, Delaware policymakers realized that “more than one half of the state’s principals and assistant principals would be retiring in the next five years” (Olson, 2008). This issue of impending shortages is not limited to the United States, as in 2007-08, approximately 30
secondary schools began the year with an open principal position (Barker, 2007) The General Teaching Council of England indicates that this shortage will only get worse as 34 percent of England’s principals are expected to retire from 2006-2011 (“Headteacher Shortage”, 2006). Lovely (2004) found that 54 percent of U.S. principals are over age 50 and that many superintendents feel that you have to “settle and take what you get” with applicants. Given the importance of the role of principal and the shortages forecast, students will be the ones that bear the brunt of the leadership deficit (Olson, 2008).

Job satisfaction is defined as “the psychological disposition of people toward their work- and this involves a collection of numerous attitudes or feelings” (Schultz, 1982, p. 287). Smith, Kendall, and Hulin (1969) stated “job satisfactions are feelings or affective responses to facets of the situation”. Spector (1997) defined job satisfaction as the “extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs” (p. 2). Weiss and Cropanzano (1996) dealt more with emotion in their definition of job satisfaction, saying that satisfaction results partly, but not entirely, from emotional experiences at work. Job satisfaction can depend on a large number of factors. Herzberg (1973) found that job attitudes are functionally related to the productivity, stability of the working force and that the positive effects of high attitudes are more potent than the negative effects of low attitudes. When principals are dissatisfied with their jobs, that dissatisfaction can have an impact on many people besides the principal. Given the importance of their jobs and the number and complexity of the tasks they face, it is important to identify the factors that contribute to job satisfaction for high school principals.
Importance of Study

For the purposes of this research and to inform the reader, it is vital to explore the characteristics of the principals’ profession and personal characteristics that affect the attitudes and feelings of the present-day principal’s job and lead to job satisfaction. Yerkes and Guglianone (1998) identified many difficulties associated with the job of principal, such as: (a) 60 to 80 hour work weeks, (b) complexity of the job, (c) high expectations, (d) minimal pay difference between top teachers and administrators, (e) unending supervision of night activities, (f) federal, state and district mandates, (g) increasingly complex society, (h) vice-principal job seen as negative, and (i) difficulty in helping teachers becoming more collaborative. Conversely, it is important to identify concepts that lead to satisfaction for principals. Knowledge of these concepts might allow practices to be put in place that will enable superintendents and school districts to maximize job satisfaction for high school principals, thus reducing the turnover rate and improving the quality and quantity of applicants for such positions. In 2003, the Capistrano Unified School District used data to determine that replacing a single high school principal cost them $15,200 in replacement planning costs (Lovely, 2004).

Schmidt (1976) indicated that school administrators relate job satisfaction to achievement and recognition and advancement. Over time, the view has emerged that salary, good interpersonal relationships, and supervision were not related to satisfaction. Those findings are comparable to an Industry Week CEO survey in 1998 in which 78 CEO’s rated the ability to develop people and the ability to grow an organization as the top two measures of job satisfaction (Stevens, 1998). Similarly, a study conducted by MetLife Survey (2002) with public high school principals found that making a difference
in lives as the number one reason for job satisfaction, followed by being involved with students and great staff/faculty. In the same study, stress was the number one reason for dissatisfaction followed by not enough support from central administration and too many non-educational responsibilities (Metropolitan Life Insurance Col, 2001).

In his study, Hazard (1991) found that the general satisfaction of high school principals in Nebraska were above average with variety of the job and the chance to do things for other people listed as items that gave them the most satisfaction. Brogan (2003) similarly studied the satisfaction of high school principals in Idaho and found that more experienced principals were generally more satisfied with their jobs as were those with more vice-principals. Haines (2007) found that high school principals in Mississippi were generally satisfied but noted that many reported less job satisfaction since the initiation of the No Child Left Behind Act (NCLB).

Newby (1999) found that middle school principals in Virginia were “satisfied” with their positions (p. 108). Bowling (2007) replicated this study with middle school principals in Virginia and had similar findings. Stemple (2004) adapted the Newby study but used high school principals in Virginia. With a high-stakes testing climate prevalent in Virginia during his study, Stemple added the accreditation status of the school as a predictor variable. Stemple (2004) found that high school principals in Virginia were least satisfied with their level of compensation and most satisfied with their service to others. The number of assistant principals and Virginia accreditation status were significant predictors of job satisfaction. All of the previously mentioned studies used the Minnesota Satisfaction Questionnaire (MSQ) to explore job satisfaction. This dissertation will adapt the Stemple study by using Annual Yearly Progress (AYP) status in place of
Virginia accreditation status as a predictor variable. This study will examine high school principals in the state of Missouri instead of the state of Virginia and add to the limited body of knowledge regarding the variables that impact job satisfaction for high school principals.

Significance of the Study

Spector (1997) defined job satisfaction as the degree to which people like their jobs and further stated that some enjoy work and find it to be a central part of life, while others hate work and only do so because they must. The study of job satisfaction can use the knowledge gained to determine the aspects that lead to job satisfaction and increase those aspects in the workplace. Job satisfaction is strongly caused by a variety of conditions, such as responsibility, job variety, or communication requirements. Job satisfaction is also important because it can be closely linked to outcome variables such as absenteeism, inefficiency, counterproductive behavior, or lack of leadership (Dormann & Zapf, 2001). The study of job satisfaction among principals is important because there are aspects of the job that are highly attractive and lead to the opportunity to work with a school faculty and staff to accomplish common goals, develop school culture and work with students (Malone, Sharp, & Walter, 2001). Often in studies of the principals the study looks at negative aspects of the principalship and neglects looking at what reasons make the job of running a school attractive, leading to job satisfaction.

Identification of both the factors which contribute to job satisfaction and the factors that contribute to job dissatisfaction is important to ensure that the principalship is attractive to potential candidates as well as those already serving in that capacity. Many
variables have been hypothesized to be a result of job satisfaction or dissatisfaction, including both variables of job performance and those of demographics.

Benefit of Study

There are three ways this study will be helpful to practicing administrators. First, it will further validate or refute the previous research on job satisfaction among high school principals and will add to the limited amount of information there is regarding job satisfaction of high school principals, especially in the state of Missouri. The body of research is somewhat limited in this area, and much of it has been completed in other countries and states. This study will attempt to draw comparisons to the findings in previous studies. Second, this study gives answers to what variables contribute to overall job satisfaction among high school principals in Missouri. To date, no study has been focused on job satisfaction among high school principals in Missouri, thus this study will be the first to study variables that lead to job satisfaction among this group. Third, it assists current and future administrators in making decisions regarding their working conditions in attempts to improve job satisfaction. Many teachers each year complete the requirements to be principals, but many are unsure of the benefits of being a principal. This study will assist these potential administrative candidates in determining which variables to consider when looking for a job as a principal.

The Problem

There is a lack of information regarding job satisfaction among high school principals in the state of Missouri. The job of leading a high school as a principal has become extremely complex in the current era of high-stakes testing and increasing societal, economic, and political accountability. The principal’s job is influenced by the
societal and political pressures of the community and these pressures can lead to a lack of job satisfaction. High job satisfaction and organizational commitment will generally lead to higher productivity and better employee performance (Silverthorne, 2005).

The Purpose

This study adds to the limited body of knowledge regarding job satisfaction among high school principals. The study investigates the overall satisfaction level of high school principals in Missouri as measured by the Minnesota Satisfaction Questionnaire (MSQ). The MSQ is based on the Theory of Work Adjustment which uses the correspondence between the work personality and the work environment as the primary reason or explanation for observed work adjustment satisfaction (Weiss, Dawis, England, & Lofquist, 1967). The twenty dimensions of the MSQ are used individually as a measure of the principal’s job satisfaction. This study will specifically look at the influence of these variables: age, gender, salary level, number of assistant principals, school size, AYP status, education level, and years as a principal on the principals’ general satisfaction level, and their satisfaction with the twenty dimensions of the job.

Research Questions

A principal’s job satisfaction is an important determinant in career decisions about becoming and remaining an administrator. As in any job field, the administration work force is composed of individuals from varied backgrounds, experiences, and situations. Despite several studies of school principals’ job satisfaction, this important area of study remains incomplete at the high school level, especially in the United States, and more specifically, in the state of Missouri. The questions that guided this study were:
1. What are the demographic summary statistics for Missouri high school principals for the following demographic variables: age, gender, salary level, number of assistant principals, school size, AYP status, education level, and years as a principal?
2. Is the Minnesota Satisfaction Questionnaire (MSQ) reliable for Missouri high school principals?
3. What is the general satisfaction level of Missouri high school principals as measured by the MSQ?
4. What is the satisfaction level of Missouri high school principals as measured by the twenty scale scores of the MSQ?
5. Are there differences by demographic in Missouri high school principals’ satisfaction as measured by the MSQ for the following demographic variables: age, gender, salary level, number of assistant principals, school size, AYP status? If there are significant differences, can group membership be predicted?

The research problems will be studied from a positivism paradigm. The answers to these questions can be used as information to determine the correspondence that high school principals have between themselves and their work environment. According to the theory of work adjustment, correspondence is necessary for an individual to feel fulfillment in their vocation (Lofquist & Dawis, 1969). Information from this study could help improve high school principal job satisfaction and possibly recruit more principals or retain current ones. The knowledge could be used to improve the job satisfaction of principals and lead to follow up research in the field of job satisfaction among high
school principals in Missouri or to the development of practices to maximize the variables that lead to job satisfaction for Missouri high school principals. By maximizing those variables, a school district will be better served by that principal’s leadership as the principal will be able to better meet the political, societal, and economic needs of the community creating a better school for students and the community it serves.

Conceptual Underpinnings

The basis for the development of the Minnesota Satisfaction Questionnaire was based upon the theory of work adjustment. The first version of work adjustment theory was published in 1964 by Dawis, England, and Lofquist. The researchers have continued to collect data from their continuing research of the Work Adjustment Project at the University of Minnesota. Extended forms of the theory were published in book form in 1969 (Lofquist & Dawis), and research continues today. The theory of work adjustment is based upon the concept of correspondence between and individual and their environment (Dawis & Lofquist, 1984). Correspondence is a relationship in which the individual and the environment are mutually responsive. Into this relationship, the individual brings his requirements of the environment and likewise, the environment has requirements of the individual. In order to survive in an environment the individual must achieve some degree of correspondence (Lofquist & Dawis, 1969).

It is a basic assumption of the theory of work adjustment that each individual seeks to achieve and maintain correspondence with his environment. There are many kinds of environments- home, school, work- to which an individual must relate. Achieving and maintaining correspondence with one environment may affect the correspondence achieved and maintained in other environments. Work represents a major
environment to which most individuals must relate (Lofquist & Dawis, 1969). Satisfaction then indicates the correspondence between the individual and the work environment (Dawis & Lofquist, 1984).

Dawis, England, and Lofquist (1964) formulated a theory of vocational psychology that was based on the idea that the individual is a responding organism. As individuals respond to their environment, their responding becomes associated with reinforcers in the environment. Dawis et al. (1964) summarized the theory of work adjustment in the following statements:

1. Work is conceptualized as an interaction between an individual and a work environment.
2. The work environment requires that certain tasks be performed, and the individual brings skills to perform the tasks.
3. In exchange, the individual requires compensation for work performance and certain preferred conditions, such as a safe and comfortable place to work.
4. The environment and the individual must continue to meet each other’s requirements for the interaction to be maintained. The degree to which the requirements of both are met may be called correspondence.
5. Work adjustment is the process of achieving and maintaining correspondence. Work adjustment is indicated by the satisfaction of the individual with the work environment and by the satisfaction of the work environment with the individual, by the individual’s satisfaction.
6. Satisfaction and satisfactoriness results in tenure, the principal indicator of work adjustment.
7. Work personalities and work environments can be described in terms of structure and style variables that are measured on the same dimensions.

Analysis of the summary statements of work adjustment reveals why many researchers use this instrument when exploring aspects of job satisfaction (Bowling, 2007; Chen, 2000; Genzen, 1993; Stemple, 2004; Sutter, 1994). Each of the statements contributes to the concept that individuals act, react, and come to terms with their work environment, thus adjusting to the work environment. The amount of adjustment (or level of correspondence) contributes to the satisfaction or fulfillment one feels from their work experience ((Lofquist & Dawis, 1969). Maslow (1998) further states that all human beings prefer meaningful work to meaningless work, thus if correspondence is not achieved at an acceptable level for the individual, there will be a diminished level of satisfaction.

Limitations

With all survey research, there are several limitations and using the internet produces even more limitations than the traditional mail survey (Dillman, 2000). A main limitation of this study is that both the demographic data sheet and the MSQ are self-reported instruments, and with self-reporting, response rates can often be low, inadequate answers cannot be probed for more specific or relevant responses, and if the question is unclear to the respondent, there is no interviewer to explain the question. Another limitation is that this study will be limited to Missouri high school principals that have an email address on file with the Missouri Department of Elementary and Secondary Education (DESE). Question order bias may also occur because the respondent can study the whole questionnaire before answering the first question (Rossi, Wright, & Anderson,
Another limitation is that by conducting an internet survey, there is an assumption that all principals will have internet access and technology that is compatible with the Northwest Missouri State University survey maker system. Another limitation is that the study will only deal with facets and aspects that the MSQ are designed to measure.

Definitions of key terms

For the purpose of this study, the following definitions will apply to these terms:

Principal- For the purpose of this paper, principal will be defined as the individual identified as the chief building administrator in a school.

High School- For the purpose of this study, high school will be defined as a school with at least grades 10-12. High Schools in Missouri vary as to the beginning grade, but all high schools have at least grades 10-12 (Missouri Department of Elementary and Secondary Education School Directory, 2008).

Satisfaction- “An internal indicator of correspondence; it represents the individual worker’s appraisal of the extent to which the work environment fulfills his or her requirements” (Dawis & Lofquist, 1984, p. 55).

Minnesota Satisfaction Questionnaire (MSQ)- The long-form MSQ, 1967 version, is a survey that consists of 100 items that each refer to a reinforcer in the work environment. It was developed by the Work Adjustment Project at the University of Minnesota.

Summary

This study investigated the satisfaction of Missouri High School principals. It builds upon the previous work of Hazard (1991), Newby (1999), Brogan, (2003), Stemple (2004), Bowling (2007) and Haines (2007). Newby and Bowling surveyed middle school
principals in Virginia while Stemple surveyed high school principals in Virginia. Hazard, Brogan, and Haines all studied high school principals, Hazard in Nebraska, Brogan in Idaho, and Haines in Mississippi. All used the Minnesota Satisfaction Questionnaire (MSQ), which is based upon the Theory of Work Adjustment (Lofquist & Dawis, 1969). The theory of work adjustment will be discussed in detail in chapter two.

This study is presented in five chapters. Chapter 1 includes a statement of the problem, significance of the project, limitations of the study, and key definitions. Chapter 2 provides a review of related literature to job satisfaction and recruitment and retention of principals. Chapter 2 also establishes a theoretical framework. Chapter 3 contains the research methodology for the study, including the design and method for gathering data on high school principals in the state of Missouri. Chapter 4 reports the findings of the study, and Chapter 5 presents the summary, discussions, conclusions, and recommendations.
CHAPTER TWO
REVIEW OF THE LITERATURE

The purpose of this study was to investigate job satisfaction of high school principals in the state of Missouri. This chapter will summarize the findings of literature related to job satisfaction. This chapter will look at literature on job satisfaction, job satisfaction theories, characteristics of job satisfaction, and previous studies of job satisfaction and school personnel. While the theory that is used for the basis of this study is the theory of work adjustment, a historical perspective of other theories is presented here along with contemporary theories of job satisfaction.

Job Satisfaction

A review of the literature finds many similar definitions of job satisfaction, but Siegel and Lane (1982) contend that no uniform definition exists. Often, the terms job satisfaction and job attitudes are used interchangeably (Vroom, 1964; Robbins, 1991). In many definitions, a person’s feelings seem to be a key component of the definition. According to Silverthorne (2005), motivation and performance are influenced by the emotions we experience both at work and in our personal lives. Job satisfaction must be assumed to be the result of the operation of both situational and personality variables (Vroom, 1964). Job satisfaction has been defined as the feeling the worker has about his job (Smith, Kendall, & Hulin, 1969) while Locke (1969) defined total job satisfaction as “the pleasurable emotional state resulting from the appraisal of one’s job achieving or facilitating one’s values” (p. 316). Solly and Hohenshil (1986) stated “job satisfaction is defined as an attitude individuals hold about their work consisting of a general or global
factor of satisfaction as well as a collection of specific factors related to sources of work reinforcement” (p. 119) while Zaleznik, Christensen, and Roethlisberger (1958) determined that job satisfaction or dissatisfaction is determined by a person’s total situation at work and at home, including every aspect of their life. Lawler (1973) explained job satisfaction as a result of the difference between what people thought they should receive and what they perceived that they actually did receive.

Spector (1997) says that “job satisfaction is simply how people feel about their jobs and different aspects of their jobs” (p. 2), while it has also been defined as “the psychological disposition of people toward their work- and this involves numerous attitudes or feelings” (Schultz, 1982, p. 287). Lofquist and Dawis defined job satisfaction as the pleasurable emotional state resulting from the appraisal of the extent to which the work environment fulfills an individual’s requirement and the fulfillment of the requirements of an individual by the work environment (1969). Similarly, Hoppock (1977) stated that job satisfaction can be defined as essentially any combination of psychological, physiological, and environmental circumstances that causes a person to say, “I am satisfied with my job”. The questionnaire in this study essentially asks respondents “Are you satisfied with your job?” According to Young (1984), job satisfaction is “the affective reaction that employees have about their jobs” (p. 115) and job satisfaction has implications for the individual related to physical and mental health, for the organization related to the acceptance of and good performance on the job, and for society related to quantity and quality of life.
Theories of Job Satisfaction

While there is a general agreement among researchers that job satisfaction involves the emotions, attitudes, emotions, and feelings about a job, and how these attitudes, emotions, and feelings affect the job and the employee’s personal life, there has been much less agreement on the part of researchers as to what actually causes job satisfaction. With the many definitions of job satisfaction, many researchers have proposed various theories of job satisfaction. Researchers in the field of work motivation and behavioral research have either supported or rejected these various theories.

The early work of Maslow (1954), Vroom (1964), and Herzberg (1968) laid the groundwork for many of the contemporary theories on job satisfaction. Maslow theorized job satisfaction as part of a hierarchy of needs that could be classified into five orders, the lowest consisting of basic physiological needs up to the highest, consisting of self-actualization. According to Maslow’s needs hierarchy theory (1954), needs at one level had to be met before the next level could become a motivator. Herzberg (1968) used Maslow’s need hierarchy to formulate the two factor motivator/hygiene theory of employee motivation. Vroom (1964) developed his expectancy theory that deals with needs fulfillment. Subsequent researchers have used these classic theories as a basis for the evolution of job satisfaction research and a catalyst for research in various fields, including education. Because of this, it is important to look at these classic theories of job satisfaction from a historical perspective.

Campbell, Dunnettee, Lawler, and Weik (1970) divide the present-day theories of job satisfaction into two groups, process or mechanical theories and content or substantive theories. Process theories try to explain and describe the process of how
behavior is energized, how it is directed, how it is sustained, and how it is stopped. Such theories then attempt to specify how the variables interact and influence one another to produce certain kinds of behavior. Process theories emphasize how an individual is motivated to behave (Silverthorne, 2005). Alternatively, content theories are more concerned with the specific identity of what is within an individual or his environment that energizes and sustains behavior. Content theories attempt to identify and define the specific entities within a class of important variables. They emphasize what motivates the individual (Silverthorne, 2005). Equity theory, Vroom’s (1964) expectancy theory, and work adjustment theory are examples of process theories. Maslow’s (1943) needs hierarchy theory, three-needs theory, and Herzberg’s (1968) two factor theory of job satisfaction are examples of content theories.

*Process Theories*

Process theories try to explain and describe the process of how behavior is energized, how it is directed, how it is sustained, and how it is stopped. Such theories then attempt to specify how the variables interact and influence one another to produce certain kinds of behavior (Campbell et al, 1970). Process theorists see job satisfaction as being determined by not only the nature of the job, but by the needs, values, and expectations that individuals have in relation to their job (Gruneberg, 1979). A simple example of a statement a process theorist might use could be an assertion that individuals exert more effort to obtain rewards that satisfy important needs rather than to obtain rewards that do not (Campbell et al, 1970).
Expectations and Equity Theory

Equity theory was heavily influenced by James Adams and originated around 1965 (Pinder, 1998). According to Adams, workers perceive their work-related participation in an organization as an exchange process where they provide inputs to the organization in return for valued outcomes (Donovan, 2001). There are three main assumptions in equity theory. The first assumption is that people develop beliefs about what comprises a fair and equitable return for their contributions to their jobs. Secondly, this theory assumes that people tend to make comparisons between what they perceive their exchange to be with their employer in comparison to the exchange that they perceive co-workers have with their employer. Finally, equity theory asserts that when people believe that their treatment is not equitable in relation to the exchange they perceive others to have with their employer, they will be motivated to do something about the inequity (Pinder, 1998). Individuals will actively engage in such discrepancy reduction activities until perceptions of equity are restored and the accompanying inequity tension is eliminated (Donvan, 2001). For example, one employee may believe that another employee makes more money than they do. This does not automatically mean that the first employee will feel dissatisfaction. If the employee feels that the contributions of both employees are being returned on an equitable basis, they may not be dissatisfied. People can tolerate seeing others earn more in pay and benefits if they believe that others are contributing more in the way of inputs (Pinder, 1998).

One criticism of equity theory involves the possibility that the subjective nature of the issues of fairness and justice can be a matter of personal perception. There is always a possibility that one’s perception of what is happening is not in concert with the reality of
what is happening. Another limitation of this theory involves the difficulty of comparing one organization to another, thus this theory is localized for the person (Pinder, 1998). Additionally, people often have an inflated view of their own performance and also tend to overestimate what other people are earning, thus, many often have a built-in predisposition toward viewing a situation as inequitable (Dessler, 1991).

*Expectancy/fulfillment Theory*

Vroom’s expectancy theory is based upon the belief that human behavior is the result of conscious choices made by individuals among alternative courses of action. Such choices are made by the individuals with the goal of maximizing the pleasure and minimizing the pain that result from their choices (Donovan, 2001). The expectancy theory argues that the strength of a tendency to act in a certain way depends on the strength of the expectation that the act will be followed by a given outcome and on the attractiveness of that outcome to the individual (Robbins, 1991). Expectancy theory also argues the motivation to exert effort is based upon an individual’s expectations of success (Dessler, 1991). The prime components are the relationships between effort and performance, performance and rewards, and rewards and individual goals. Thus, the key to the expectancy theory is understanding an individual’s goal and the linkage between effort, performance, rewards, and individual goal satisfaction (Robbins, 1991).

*Work Adjustment Theory*

The first version of work adjustment theory was published in 1964 by Dawis, England, and Lofquist. The researchers have continued to collect data from their research of the Work Adjustment Project at the University of Minnesota. Extended forms of the theory were published in book form in 1969 (Lofquist & Dawis), and research continues
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today. The theory of work adjustment is based upon the concept of correspondence between an individual and their environment (Dawis & Lofquist, 1984). Correspondence is a relationship in which the individual and the environment or mutually responsive. Into this relationship, the individual brings his requirements of the environment and likewise, the environment has requirements of the individual. In order to survive in an environment the individual must achieve some degree of correspondence (Lofquist & Dawis, 1969). Using this theory, a lack of correspondence for a high school principal would result in very little job satisfaction.

It is a basic assumption of the theory of work adjustment that each individual seeks to achieve and maintain correspondence with his environment. There are many kinds of environments—home, school, work—to which an individual must relate. Achieving and maintaining correspondence with one environment may affect the correspondence achieved and maintained in other environments. Work represents a major environment to which most individuals must relate (Lofquist & Dawis, 1969). Satisfaction then indicates the correspondence between the individual and the work environment (Dawis & Lofquist, 1984).

Dawis, England, and Lofquist (1964) formulated a theory of vocational psychology that was based on the idea that the individual is a responding organism. As individuals respond to their environment, their responding becomes associated with reinforcers in the environment. Dawis et al. (1964) summarized the theory of work adjustment in the following statements:

1. Work is conceptualized as an interaction between an individual and a work environment.
2. The work environment requires that certain tasks be performed, and the individual brings skills to perform the tasks.

3. In exchange, the individual requires compensation for work performance and certain preferred conditions, such as a safe and comfortable place to work.

4. The environment and the individual must continue to meet each other’s requirements for the interaction to be maintained. The degree to which the requirements of both are met may be called correspondence.

5. Work adjustment is the process of achieving and maintaining correspondence. Work adjustment is indicated by the satisfaction of the individual with the work environment and by the satisfaction of the work environment with the individual, by the individual’s satisfaction.

6. Satisfaction and satisfactoriness results in tenure, the principal indicator of work adjustment.

7. Work personalities and work environments can be described in terms of structure and style variables that are measured on the same dimensions.

Analysis of the summary statements of work adjustment reveals why many researchers use the MSQ (based upon work adjustment theory) when exploring aspects of job satisfaction (Brogan, 2003; Bowling, 2007; Chen, 2000; Genzen, 1993; Haines, 2007; Hazard, 1991; Stemple, 2004; Sutter, 1994). Each of the statements contributes to the concept that individuals act, react, and come to terms with their work environment, thus adjusting to the work environment. The amount of adjustment (or level of correspondence) contributes to the satisfaction or fulfillment one feels from their work experience ((Lofquist & Dawis, 1969). Maslow (1998) further states that all human
beings prefer meaningful work to meaningless work, thus if correspondence is not achieved at an acceptable level for the individual, there will be a diminished level of satisfaction.

Content Theories

Content theories are concerned with specific identity of what it is within an individual or his/her environment energizes or sustains behavior. Termed differently, content theories focus on what specific things motivate people (Campbell et al, 1970). Maslow (1954) suggested that people are driven by unsatisfied needs that guide their behavior. He theorized that after a person has moved from a lower to a high level of need, the higher level needs assume less prominence since they have been adequately met. Although lower level needs may at times increase in importance as a consequence of progressing through stages of psychological development, a person tends to develop a “personality structure” in which his various needs form a hierarchical system.

Hoppock (1935) and Maslow (1954) suggested that job satisfaction and dissatisfaction share a single continuum. They reasoned that both intrinsic and extrinsic factors have the capacity to create satisfaction and dissatisfaction. Maslow defines needs along a hierarchy, with lower level needs having to be satisfied before higher level needs can be met. Moving up the hierarchy the needs are physiological, safety, social, ego, and self-actualization (Dessler, 1991; Robbins, 1991). Maslow described one end of this continuum as “growth” needs and, at the other end of the continuum, “deficiency” needs. A self-actualized person is motivated differently because they have no deficiencies to make up and must now find fulfillment from intrinsic factors (growth needs). If needs are not met (in working conditions, for example), then the individual is still motivated by
deficiency needs. Pinder (1998) delineated the types of needs into two sets. The first set are those that are basic survival needs, needs that are concerned with avoiding pain and discomfort and as providing primary needs such as hunger, thirst, and sex. The second set of needs are growth needs, those that express themselves in attempts by people to become all that they are capable of becoming. Using Maslow’s terminology, high school principals that have needs not being met by their work would have deficiency needs, while Pinder would characterize them as growth needs.

Motivator/Hygiene Theory (two-factor theory)

Herzberg (Herzberg, Mausner, Patterson, & Capwell, 1957; Herzberg, Mausner, & Bloch Snyderman, 2002) used Maslow’s hierarchy of needs to formulate the motivator/hygiene theory of employee motivation. According to Silverthorne (2005), Herzberg believed that while adequate extrinsic rewards are necessary, only intrinsic rewards truly motivate people. The motivation/hygiene theory proposes that hygiene factors merely placate employees. If you want to motivate them, you need to emphasize intrinsically rewarding factors such as achievement, recognition, the work itself, responsibility, and growth (Gruneberg, 1979; Dessler, 1991; Robbins, 1991). Conversely, the hygiene factors that produce dissatisfaction include company policy and administration, supervision, interpersonal relationships, working conditions, salary, status, and security (Gruneberg, 1979; Robbins, 1991).

In 1968, Herzberg wrote about the two different needs of man. The first need is from the human’s animal nature, or the ingrained drive to avoid pain from their environment from learned practices that arise as a response to basic biological needs. The other set of needs relates to the unique characteristics of humans, the ability to achieve. It
is through this achievement that a person experiences psychological growth (Gruneberg, 1976). Herzberg also argued that elimination of hygiene factors from a job would only remove dissatisfaction, but not bring satisfaction. To bring out job satisfaction, the organization must focus on motivator factors, such as making the work more interesting, challenging, and personally rewarding (Anderson, Ones, Kepir Sinangil, & Viswesvaran, 2001).

Schmidt (1976) tested Herzberg’s two-factor theory when he conducted a study using 74 educational administrators in Chicago. Schmidt collected data using a modification of Herzberg’s interview technique and a questionnaire on characteristics of the job. Each principal was asked to think of an incident that made them feel exceptionally good or bad about their job as an administrator. Each participant was limited to four specific sequences of events: two positive and two negative. The written responses were then coded.

Using an ANOVA to determine relationships, Schmidt found that achievement, recognition, and advancement, significant at the .01 level were perceived to be major determinants of his subjects’ overall satisfaction. He also reported that interpersonal relations with subordinates, policy and administration, interpersonal relations with superiors, and interpersonal relationships with peers were perceived to be major determinants of overall dissatisfaction.

Three-needs Theory

McClelland (1961) proposed the three-needs theory of motivation. He proposes that there are three major relevant motives or needs in work situations:
1) Need for achievement (nAch): the drive to excel, to achieve in relation to a set of standards, the strive to succeed.

2) Need for power (nPow): the need to make others behave in a way that they would not have otherwise.

3) Need for affiliation (nAff): the desire for friendly and close interpersonal relationships.

He proposes that individuals with a high need to achieve prefer job situations with personal responsibility, feedback, and an intermediate degree of risk. People with high nAch tend to avoid tasks that they perceive as very easy or very difficult. He also contends that a high need to achieve does not necessarily lead to being a good manager, especially in large organizations.

The needs for affiliation and power are closely related to managerial success. High school principals often have to balance the instructional side of their job with the managerial side. This theory would suggest that principals with high nAch and nPow would be successful managers. Individuals high in nPow enjoy being in charge, strive for influence over others, and prefer to be in competitive and status-oriented situations and are more concerned with gaining influence over others and prestige than with effective performance. Individuals with a high nAff strive for friendships and prefer cooperative situations rather than competitive ones. The best managers are thought to be high in the need for power and low in the need for affiliation.

Variables of Job Satisfaction

Some research has been completed on principal’s job satisfaction and the relationship to certain variables. Throughout the research, little consistency has been
apparent in the findings. The variables most often examined include: age, gender, salary, number of assistant principals, experience, tenure, school socio-economic level, school size, and school accreditation status.

Klien and Maher (1966) used Herzberg’s theories to complete a study of educational level, pay, and job satisfaction. Using an attitude survey, Klien and Maher surveyed 727 first-level managers of an electronics manufacturing facility. They found a negative relationship between education and job satisfaction using a t test (M=2.64, SD= .94, p<.001).

A study was conducted in the education field by Friesen, Holdaway, and Rice (1983) using Herzberg’s theory. They surveyed 410 principals from Alberta, Canada. The principals were given a questionnaire that asked them two main questions: (a) what two factors contribute most to your overall satisfaction with the principalship? And (b) which two factors contribute most to your overall dissatisfaction with the principalship? They reported that the major characteristics of satisfaction for the principals’ studies were: (a) interpersonal relationships; (b) achievement; and (c) responsibility/job autonomy. They also reported that student attitudes and performance, job challenge, recognition and status, and job importance had secondary significance in terms of satisfaction. Friesen, Holdaway and Rice also reported the highest characteristics of job dissatisfaction as: (a) relationships with parents; (b) amount of work; (c) overall constraints; (d) attitudes of society; and (e) working conditions.

In 2004, Stemple studied the job satisfaction among high school principals on the state of Virginia. He found that principals in Virginia were generally satisfied. They were most satisfied with their level of activity, their ability to serve others, and their ability to
do their job within their moral conscience. The principals were least satisfied with their compensation levels. When a step-wise multiple regression was completed there was a positive significant prediction relationship between the demographics of school accreditation status as well as the number of assistant principals and job satisfaction. This data indicated that principals of medium sized schools with three assistant principals that are fully accredited under the Virginia guidelines are the most likely principals to be satisfied.

Age

Age is an important variable because employees of any organization usually vary in age and thus, age is often studied by researchers looking at job satisfaction. Herzberg et al. (1957) studied age relative to job satisfaction and found that job satisfaction for a younger worker starts high at the beginning of a career, declines, and then starts to rebound with increasing age. This pattern was also found in studies conducted by Kacmar and Ferris (1989) and by Newby (1999). Various researchers have conducted studies comparing job satisfaction and age, finding that job satisfaction does vary with age (Saleh & Otis, 1964; Lim, 1985; Brush, Moch, & Pooyan, 1987). Generally speaking, most found that job satisfaction generally increases with age. In other studies, no significant difference was found in job satisfaction and age (Stemple, 2004; Bowling, 2007).

Tenure (Years in current school district)

Tenure and age are often similar from a research perspective. Principals with longer tenure also tend to be older. There is limited research in this area of study. Ward (1977) found that elementary principals in Virginia with six or more years of service had stronger feelings regarding interpersonal relationships with teachers than did principals
who had five or fewer years of experience. Brady (2001) found in her study of California principals that the length of years in current position correlates to their perceived job performance and overall job satisfaction. Brady theorized that principals who stayed in their current position the longest most likely stayed due to high job satisfaction and job performance. Brady’s study did not prove this theory, but left open the possibility of discussion of tenure in the current position as a criterion variable as a predictor of job satisfaction. Stemple (2004) found no significant difference in job satisfaction with regard to the number of years in a school district.

Education Experience

Education experience is a variable that looks at the job satisfaction of newer principals versus that of more experienced principals. Sutter (1994) studied secondary assistant principals in Ohio and found no significant relationship between job satisfaction and administrative experience. Bridges (1995) conducted a similar study with assistant principals and found no significant relationship between job satisfaction and experience level. Newby (1999) and Bowling (2007) found no significance between job satisfaction and experience level in their studies of Virginia middle school principals and Stemple (2004) found similar results in his study of Virginia high school principals. The studies that have shown a significant relationship between education level and job satisfaction have not been done in an educational setting (Klien & Maher, 1966; Quinn, Graham, & McCullough, 1974).

Gender

Gender issues have been researched more frequently as a larger number of women have become administrators. A study by Eckhman (2002) suggested that in order for
schools to recruit and retain female principals, the schools must give consideration to the role conflict, role commitment, and job satisfaction of high school female principals. Through this study, looking at this variable in Missouri will give insight to the levels of job satisfaction among Missouri female high school principals.

There have been a number of studies investigating gender differences and job satisfaction (Hulin & Smith, 1964; Poole, 1992; Vaughn-Wiles, 1987). While most studies use gender as a predictor variable, they report little or no significance as related to job satisfaction (McCann, 2002; Newby, 1999; Stemple, 2004; Bowling, 2007).

**Salary**

Salary is often used in our society to indicate a person’s level of achievement and success. In 1977, Hoppock supported this statement with his findings. His study showed that there was a significant difference in the average salaries of the most satisfied and the least satisfied teachers. Teachers who made more were more satisfied than those who had lower salaries. Several studies have linked a correlation between job satisfaction and pay (Blanchflower, Oswald, & Warr, 1993; Schwab & Wallace, 1974). Porter and Lawler (1968) concluded that job satisfaction reflects the rewards an employee gets for the type of work they do. Sablatura (2002) found that urban, suburban, and rural principals were not satisfied with how well they were compensated, thus, salary was a factor affecting job satisfaction. In a study of 2054 classroom teachers, Kim and Loadman (1994) found that job satisfaction and pay satisfaction were significantly related. Stemple (2004) found that as the salary level increased for high school principals in Virginia, so did the level of job satisfaction. Similarly, Barry (2002) reported that Michigan high school principals who were paid more were more satisfied with their work.
School Size

School size refers to the number of enrolled students at an identified school location. Generally speaking, as school size increases, there are more extra-curricular and co-curricular offerings at a school. This often leads to more supervisory responsibilities and activities for principals to attend and monitor. Armstrong (2001) hypothesized that as school size increases, levels of job satisfaction among principals decrease. In response to his survey that he conducted among high school principals in the state of Missouri, he found that principals of schools with a student population ranging from 188 to 1,026 were most satisfied with their jobs and that principals of the schools in the largest class (1,027 students and above) were the least satisfied. He suggested further study that would look at school size as a predictor variable for job satisfaction.

Conversely, Barry (2002) found that in his survey of high school principals in Michigan, principals in larger high schools (class A) had a higher level of satisfaction with promotion and overall satisfaction than did those principals in smaller schools (class C). Stemple (2004) and Bowling (2007) found no significant affect on satisfaction in regards to school size. Newby (1999) found that there was a positive linear association between school size and job satisfaction among middle school principals in Virginia.

Number of Assistant Principals

There has been limited research in the area of relating the number of assistant principals to the level of job satisfaction of principals. Having more assistant principals to run a building would seemingly allow a principal to be more satisfied as they would seem to have more help and would have a higher level of camaraderie and teamwork. Conversely, having more assistant principals to supervise and train could also lead to less
job satisfaction. In a study of principals in Virginia (DiPaola & Tschannen-Moran, 2003), two-thirds of the principals reported that they neither had the time or personnel (i.e. assistant principals) to fulfill the expectations of them as an instructional leader. Stemple (2004) reported that the level of job satisfaction increased as the number of assistant principals increased to three, but then declined as there were four or more assistant principals. Principals with three assistant principals had more job satisfaction than those with four or five assistant principals, and conducting a post hoc test using Tukey’s test, they had significantly more job satisfaction than those with zero or one assistant principal.

*School Socio-Economics*

Most studies on job satisfaction among educators focus on the issues of gender, age, and degree status. Most have avoided the variable of school location or school socio-economic status. While there are limited studies using this variable, some researchers have indicated some differences when looking at socio-economics as a variable.

Sablatura (2002) studied Texas principals and their views of job satisfaction. Sablatura examined how job satisfaction was perceived and the differences of those perceptions among urban, suburban, and rural principals. He found similar levels of job satisfaction when looking at the variables of achievement, the work itself, compensation, and relationships with stakeholders. There were differences in job satisfaction when looking at the variables of advancement opportunities, supervision, recognition, responsibility, social status, and job security.

Derlin and Schneider (1994) surveyed 326 urban and suburban principals to determine their level of job satisfaction. Their results indicated that job satisfaction for
suburban principals and location was more influential than for urban principals. Finley (1991) noted significant differences between school location and overall job satisfaction of high school principals in Tennessee. Bowling (2007) found that school location had no significant effect on job satisfaction of Virginia middle school principals and Stemple (2004) reported no significant difference in job satisfaction and percent of students on free and reduced lunch.

*Percent of Time Spent with Students*

While the primary focus of educational institutions is the nurturing and development of students, there has been very little research done with regards to the variable of student interaction. There are many positive aspects of being an educator, but the greatest aspect is helping students learn, seeing them achieve, and building lasting relationships that extend beyond the classroom (Hounshell & Griffin, 1989). One would expect that increased interaction with students would lead to greater job satisfaction. In a study of high school principals in Texas, principals rated enjoying contact with students and having an opportunity to impact students as the two highest positive aspects of their job (Malone, Sharp, & Walter, 2001). Surprisingly, Stemple (2004) found no significant differences in job satisfaction for high school principals in Virginia who spend more time with their students.

*School Accreditation Status*

With the passage of the No Child Left Behind Act in 2001 (NCLB), schools are being required to meet standards of accountability for educating students more than ever. The accreditation status of a school has become a touchstone to drive discussion and debate about the quality of education that students are receiving. Principals are now
expected to know standards, align instructional programs, be familiar with state assessments, have school improvement plans, and analyze and disaggregate data to ensure their school meets the requirements of both the state and federal government (Thomas, 2002).

In the state of Missouri, schools are evaluated for making Annual Yearly Progress (AYP) on the basis of several areas, including, but not limited to, Missouri Assessment Program (MAP) tests, End Of Course (EOC) tests, attendance rate, and graduation rate. Principals must ensure that their schools make AYP, a minimum level of improvement on state assessments from year to year (Ross, 2002). If a school fails to meet AYP in the same subject area for two or more years, they are placed into school improvement status. Schools that continue to fail to make AYP can have various sanctions against them, including losing Title I funding from the federal government. Schools in Missouri are also bound by the guidelines of the Missouri School Improvement Program, outlined in the Missouri Code of Regulations (http://www.sos.mo.gov/adrules/csr/current/5csr/5c50-345.pdf), which has guidelines in addition to those covered by AYP.

According to the United States Department of Education, schools that have been identified as being in need of improvement must develop a school improvement plan that embodies a design that is highly comprehensive, highly structured, specific, and focused primarily on the school’s instructional program. Specifically, the plan must:

- Incorporate strategies based on scientifically based research that will strengthen the core academic subjects in the school and address the specific academic issues that caused the school to be identified for school improvement;
- Adopt policies and practices concerning the school’s core academic subjects that
have the greatest likelihood of ensuring that all groups of students specified in section 1111(b)(2)(C)(v) and enrolled in the school will meet the State’s proficiency level of achievement;

- Directly addresses the academic achievement problem that caused the school to be identified for school improvement;

- Establish specific, annual, measurable objectives for continuous and substantial progress by each group of students specified in section 1111(b)(2)(C)(v) and enrolled in the school;

- Specify the implementation responsibilities of the school, the LEA, and the SEA serving the school under the plan;

- Include strategies to promote effective parental involvement in the school;

- Incorporate, as appropriate, activities before school, after school, during the summer, and during the extension of the school year;

- Incorporate strategies to promote high quality professional development; and

- Incorporate a teacher mentoring program.


With these guidelines and recommendations from the Department of Education and the Missouri School Improvement Plan, it is easy to see the level of increased pressure that NCLB has added to the job of a principal. Principals must implement strategies and practices that will allow their school to not only maintain a level of achievement, but continuous improvement. Failure to meet these ever increasing expectations can lead to even more sanctions for a school, and often, to the dismissal of the principal.
In his study of Virginia high school principals, Stemple (2004) found that there was a significant difference in job satisfaction and Virginia Accreditation status. Principals who reported that their schools were fully accredited under the Virginia Accreditation Standards reported a higher level of job satisfaction than those principals who were not fully accredited. He also reported no significant difference between those principals who reported that their schools met Adequate Yearly Progress and those that reported that their schools had not met Adequate Yearly Progress.

**Principals and Job Satisfaction**

Numerous studies have been conducted using the six job dimensions and the ten hygiene factors theorized by Herzberg (1968), but there has traditionally been little research done specifically related to job satisfaction among high school principals in the United States. The majority of that research at the secondary level has been conducted in other countries, including Canada, Great Britain, and Australia (Friesen et al, 1983; Gunn & Holdaway, 1986). While these studies give us some insight into the factors that influence job satisfaction among high school principals, their benefit is limited because the education systems, populations, and roles of the principal are different than those in the United States and Missouri.

Harvey and France (1997) conducted a study among graduate-level administration students at the University of Victoria (Canada). Fifty of the 101 subjects were working exclusively in administration and the rest were working in an administrative/teaching role, but anticipated working full time in an administrative role after completion of the graduate degree. The authors used the Manifest Needs Question (MNQ) developed by Steers and Braunstein (1976) to measure achievement, autonomy, affiliation, and
dominance that education administrators experience on the job. Harvey and France used correlations to measure interrelationships between sub-scale on the MNQ and sex, age, years of teaching experience, years of administrative experience, and 23 characteristics present in the job. They found no significant differences in the sub-scales of gender, age, and years of teaching experience. This study was limited in that the subjects were all in a graduate program for educational leadership. It is reasonable to expect that these subjects would have a higher level of satisfaction with their jobs or they probably would not be in a graduate program. This group also indicated that overall satisfaction was most highly related to security, freedom, and variety on the job. Since this group of subjects was very homogenous, it would be interesting to see if repeating the study with a diverse group (such as high school principals in a state) would provide different results.

Using the Minnesota Satisfaction Questionnaire (MSQ), Newby (1999) randomly selected 188 middle school principals in Virginia to answer a survey on job satisfaction. Bowling (2007) replicated the study using 335 middle school principals in Virginia. Newby was attempting to answer the following questions: (a) what was the general level of job satisfaction among middle school principals; (b) what was the satisfaction level for each of the 20 dimensions of the job as measured by the MSQ; and (c) what was the satisfaction for each dimension according to demographic variables: age, gender, degree, years of experience, school location and school size? In addition to those questions, Bowling also attempted to answer the following questions: (d) based on the demographic variables of gender, age, degree, experience, school location, and school population, what is the satisfaction level of middle school principals for each of the twenty dimensions of the MSQ; (e) based on the demographic variables of accreditation status and Adequate
Yearly Progress (AYP) have the Virginia Standards of Learning and No Child Left Behind Legislation influenced the general job satisfaction of middle school principals in Virginia?

Newby (1999) reported that middle school principals in Virginia were generally satisfied with their jobs. She also reported similar results for each of the 20 dimensions of the MSQ. Bowling (2007) found similar results. Additionally Bowling found no significant results between job satisfaction and the influences of AYP and NCLB.

A criticism of both the Newby study (1999) and the Bowling study (2007) was the selection method and response rate. Newby randomly selected principals and received a 70% return rate, a good number for a mailed survey. However, she gave no indication of an attempt to follow up to get the additional 30%. Bowling used all middle school principals in Virginia as his sample, but only received a return of 57% on his surveys that he mailed. He did follow up with a post card reminder and two follow up letters. Stemple (2004) conducted a similar study of high school principals in Virginia, using a population of 289 principals that had usable email addresses. Thirteen principals were excluded due to the fact that they did not have usable email addresses. Members of the population were sent an advance letter to inform them that they had been selected to participate in an internet survey on job satisfaction. Two weeks later, they received a personalized email containing a link to the survey. A week after the emails were sent, a follow-up email was sent to all non-respondents, asking them again to complete the survey. A final fourth contact was made just prior to the close of the survey, allowing participants one final chance to participate in the survey. Stemple received a response rate of 63.3%. From this data, Stemple concluded that high school principals in Virginia were generally satisfied.
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They were most satisfied with their level of activity, their ability to serve others, and their ability to do their job within their moral conscious. They were least satisfied with their compensation levels. When a step-wise multiple regression was completed, there was a positive significant prediction relationship between the demographics of school accreditation status as well as the number of assistant principals. Principals of medium sized schools with three assistant principals that are fully accredited under Virginia guidelines were the most likely to be satisfied principals.

Sutter (1994) conducted a survey of 632 secondary assistant principals in Ohio using the MSQ. Sutter found that assistant principals who believed they were accomplishing much on the job reported a higher level of satisfaction compared to assistant principals who believed they were accomplishing much less. Sutter also found that assistant principals who believed there would be opportunities for advancement within their school system were found to have significantly higher levels of job satisfaction compared to those who didn’t believe those opportunities existed. Assistant principals who wanted to become principals were found to have significantly higher levels of satisfaction compared to those who did not want aspire to be principals. Assistant principals who felt their talents and skills were being utilized on their job had a higher level of job satisfaction than those who did not hold this belief.

Chen (2000) conducted a study using the MSQ in which 245 assistant principals in Mississippi were studied to determine the degree of general, intrinsic, and extrinsic job satisfaction among high school assistant principals. His results showed a high degree of general, intrinsic, and extrinsic job satisfaction among the assistant principals. Compensation and work load were the only factors receiving less than a 50% satisfaction
rating. He also reported no significant relationship in two specific variables he examined: (a) length of time worked as an assistant principal, and (b) school size in terms of enrollment.

In 1990, Profitt conducted a study that tested the relationship between locus of control and job satisfaction of Appalachian principals of West Virginia, Virginia, Kentucky, and Tennessee. Profitt hypothesized that those with predominantly internal loci of control would have significantly higher levels of satisfaction than those with external loci of control. Profitt also hypothesized that those with predominantly internal loci of control would have significantly higher levels of extrinsic job satisfaction than those principals with external loci of control. Profitt found a statistically significant relationship between internal loci of control and intrinsic job satisfaction of the principals in the study. Profitt also reported that female principals experienced significantly higher levels of intrinsic job satisfaction than their male colleagues. Principals that made in excess of $40,000 annually also experience a high level of extrinsic job satisfaction.

There were several limitations to Profitt’s study (1990). There is an inherent weakness in the Internal/External locus of control (I/E) instrument. Also, gender and salaries were the only variables correlated with the I/E instrument. The variables of age, years of experience, and school size were not looked at. There was also no differentiation made regarding elementary or high school. High concentrations of female principals in elementary schools may have skewed the results since gender and school levels were not variables considered in comparison to each other. Finally, the entire study was conducted in a rural setting. Although this was by design of the study, it did limit the inferences that could be drawn.
Smith (1976) studied job satisfaction among Connecticut public senior high school principals as related to school location and school size. Smith’s purpose was to determine the level of job satisfaction among current Connecticut public senior high school principals, to determine if job satisfaction of these principals differed according to location or size of school, and to see if certain personal demographic variables could be used as predictors of principals’ job satisfaction. Smith used the MSQ and a demographic data sheet to survey 143 senior high principals and had a response rate of 93%.

Smith (1976) found that the principals in his study could be described as very satisfied with their jobs and that school size had no measurable impact on their level of satisfaction. The sample principals ranked social service, moral values, activity, and achievement at the high end of the satisfaction continuum. The design of the study was a main limitation, since only school size and location relative to satisfaction were analyzed. He was able to report a high level of satisfaction, but little else. The principals surveyed in 1975 were a highly homogenous group: 97% male, 95% married, 98% white, 50% age 40-49, 57% Catholic.

Watson (1991) studied job satisfaction among secondary principals in California. She surveyed 97 secondary school principals. The majority (87%) were satisfied with their job. She also reported no significant difference for job satisfaction as related to nine independent variables: orientation, age, gender, ethnicity, salary, years as a secondary principal, school structure, school population, and district size. Watson’s study was limited by the relatively small sample size and the homogenous group in which she researched: 82% male, 92% white, and 61% age 45-54.
Using the MSQ, Brogan (2003) conducted a study of job satisfaction among high school principals in Idaho. Questionnaires were returned by 78 principals (a 60.9% return). He found that males had slightly higher levels of job satisfaction than females as did more experienced principals. Principals with the highest number of assistant principals overwhelmingly had the highest level of job satisfaction.

In 1991, Hazard studied the job satisfaction of 120 high school principals in Nebraska. He found that their level of job satisfaction was above average when compared to norm groups established for the MSQ. He also found that the principals has the most satisfaction in the variety of their job, the chance to do things for other people, the ability to keep busy, and the way their job provides steady employment. The areas where the principals had the least satisfaction were the lack of recognition they received for doing a good job, pay for the amount of work they did, advancement opportunities, and the way superintendents handled their subordinates. He conducted a multiple regression and found that with the exception of salary, there was little support that any of the factors researched in the study had a major influence upon job satisfaction.

Haines (2007) studied job satisfaction among high school principals in Mississippi. Questionnaires were sent to all 355 high school principals in the state and 153 (43%) responded. He found the respondents to have general satisfaction scores that were within or above the “satisfied” range. He also found that 58% reported having less job satisfaction since the implementation of the No Child Left Behind Act (NCLB). Since the implementation of NCLB, 79% report having increased stress levels and 86% report an increased workload. Additionally, 70% reported being able to spend less time with their family or significant other.
Summary

The chapter two review of literature explained several historic theories of job satisfaction. Among these theories were: (a) expectations and equity theory, (b) expectancy/fulfillment theory, (c) work adjustment theory, (d) motivator/hygiene theory (two-factor theory), and (e) three-needs theory. Since this study will be using the MSQ, much of this study will be related to the work adjustment theory because the MSQ is based upon that theory. The literature review also looked at the importance of the variables: age, tenure, education experience, gender, salary, school size, number of assistant principals, school socio-economic status, and school accreditation status. Finally, various studies conducted with regards to principal satisfaction were analyzed. Generally, most studies have found principals to be satisfied with their jobs but have found some variance related to different variables.
CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

The purpose of this study was to investigate job satisfaction among high school principals in Missouri. This chapter includes a statement of the problem, the project design, methods, procedures, instrumentation, and will address quality standards and strategies to maintain quality in research. Along with data compiled using from the 1967 version of the long form, Minnesota Satisfaction Questionnaire (MSQ), demographic data were also compiled. As more and more principals are retiring in Missouri, potential shortages could become a reality. With this in mind, and the ever-growing challenges facing principals, there is one main research question for this study: Are high school principals in Missouri satisfied with their jobs when looking at various demographic variables?

Study

There is a lack of information about job satisfaction among high school principals in Missouri. Schools are experiencing an increasing number of vacancies for principal positions and they are becoming more difficult to fill as fewer applicants apply (Yerkes & Gugaglianone, 1998), and the quality of those applicants is also up for debate (Whitaker, 2001). While many of these vacancies are due to retirements, some of the shortage can be attributed to the perceptions of the job of being a principal. In general, teachers view the disincentives to be more powerful than the incentives to becoming a principal. While teachers are the group from which new administrators are to likely to be drawn, fewer
and fewer now seem willing to seek administrative positions (Howley, Andrianaivo, & Perry, 2005).

While the shortage is a problem for principal positions at all levels, the shortage is more severe at the high school level (Whitaker, 2001). The current era of high accountability and high-stakes testing makes the job of leading a high school extremely complex. Principals work in an environment that stresses that principals need to be instructional leaders, but face a myriad of responsibilities that drain energies and draw principals away from that primary role of facilitating teaching and learning (Adams, 1999). Pressures from these issues that are related to the job can lead to a lack of job satisfaction.

*Purpose and Research Questions*

There is a lack of information regarding job satisfaction among high school principals in Missouri. The purpose of this study was to inform and determine the level of job satisfaction among high school principals in the state of Missouri and the factors that may be related. The questions that guided this study were:

1. What are the demographic summary statistics for Missouri high school principals for the following demographic variables: age, gender, salary level, number of assistant principals, school size, AYP status, education level, and years as a principal?

2. Is the Minnesota Satisfaction Questionnaire (MSQ) reliable for Missouri high school principals?

3. What is the general satisfaction level of Missouri high school principals as measured by the MSQ?
4. What is the satisfaction level of Missouri high school principals as measured by the twenty scale scores of the MSQ?

5. Are there differences by demographic in Missouri high school principals’ satisfaction as measured by the MSQ for the following demographic variables: age, gender, salary level, number of assistant principals, school size, AYP status? If there are significant differences, can group membership be predicted?},

The information gained from these questions can be used as information to inform about the current level of satisfaction among high school principals in Missouri. This study will add to the limited body of knowledge regarding job satisfaction among high school principals, specifically in Missouri. This knowledge could be used to increase job satisfaction for principals in the state of Missouri and lead to further research about job satisfaction among high school principals in Missouri. By improving the motivators that increase job satisfaction, districts and their constituents will be better served by the principals’ leadership, and the principals will be better able to meet the demands in the current climate of high accountability and high-stakes testing, creating a better school for students and their community.

Research Design and Methods

The research problems were studied from a positivism paradigm because this research will generate some generalizable knowledge and that the findings will be validated by logic, measurement, and the consistency achieved by the consistency of prediction and control (Coghlan & Brannick, 2005). The research design of this study is descriptive. Descriptive statistics were used to describe the principals in the state of
Missouri that self-select to respond and look for variability among the data (Leedy & Ormrod, 2001). Using the database generated from the Missouri Association of Secondary School Principals (MASSP) and the directories from the Missouri Department of Secondary and Elementary Education (DESE), the researcher used the resources of the Office of Institutional Research at Northwest Missouri State University to generate an internet survey. The researcher collected data from this office and downloaded the data into SPSS files for analysis.

There are several benefits by using an internet survey. For the respondents, they were able to control the pace, sequence, and timing of completing the survey, and were also able to read ahead to get a general idea of the length of the survey. Respondents could also answer the survey without being influenced by an interviewer and respond at any time that is convenient to them (Salant & Dillman, 1994). By doing an internet survey, respondents may have been more likely to return information because they could simply click a mouse button to return the survey, as opposed to mailing a survey.

For the researcher, there are multiple benefits from using an internet survey. With an internet survey, the delivery and response time should be greatly decreased. While this may not decrease the total time to conduct the overall survey, the delivery and response time will be greatly decreased when compared to traditional mail. According to Schonlau, Fricker, and Elliott (2002), time for preparing the survey, emailing the survey, and conducting the follow-up should be comparable to traditionally mailed surveys.

Another benefit of an internet survey is that the cost of conducting the research was greatly reduced. The original email and any follow-up emails did not have any postage cost to them. There was some cost associated with using the MSQ, but it has
been found that in other research, the royalties are based upon the actual response rate for emails and when traditionally mailed surveys are used, each printed survey incurs a cost.

**Population**

The population for this study was high school principals for all public high schools as identified by the Missouri Department of Elementary and Secondary Education (DESE) for the 2008-09 school year. An email database was available from the Office of Institutional Research (OIR) at Northwest Missouri State University that identified all principals listed in the DESE directory for the 2008-09 school year.

**Sources of Data**

Data were collected from the surveys generated using the OIR at Northwest Missouri State University. The instrumentation for this study was a two-part, self-administered web-based survey. Part one was a researcher-generated individual data (demographic) page and part two was the Minnesota Satisfaction Questionnaire (MSQ) long form. The MSQ is used to measure relative satisfaction on select job characteristics. A five-point Likert format is used to record responses. In addition, a total satisfaction score for the instrument can be computed.

**Data Collection Methods**

Data were collected from the surveys generated using the OIR at Northwest Missouri State University. Data were collected from this service and downloaded the data into SPSS files for analysis. These data were blind data with no way to identify individual respondents on the survey, thus addressing any IRB safeguards. A descriptive analysis was completed for each variable. This descriptive analysis includes means and standard deviations.
For each of the proposed research questions, there was a proposed method of analysis. For research question one (What are the demographic summary statistics for Missouri high school principals for the following demographic variables: gender, salary level, number of assistant principals, school size, and AYP status?) a summary table was developed by summing the scores for each of the demographic variables identified.

For research question two (Is the Minnesota Satisfaction Questionnaire (MSQ) reliable for Missouri high school principals?), a Cronbach’s alpha analysis was conducted to test the reliability of the instrument. The MSQ has verified data suggesting internal reliability. This reliability tends to vary across groups, thus, it is suggested that internal consistency reliability be computed for a sample representing the group on which the MSQ is used, in this case, high school principals (Weiss, Dawis, England, & Lofquist, 1967). This is further addressed under quality standards in this chapter.

For research question three (What is the general satisfaction level of Missouri high school principals as measured by the twenty scales of the MSQ?), summary statistics were calculated by summing the scores for 20 specific scales on the MSQ.

For research question number four (What is the satisfaction level of Missouri high school principals as measured by the twenty scale scores of the MSQ?), summary statistics were calculated for each of the twenty scale scores of the MSQ.

For research question five (Are there differences by demographic in Missouri high school principals’ satisfaction as measured by the MSQ for the following demographic variables: age, gender, salary level, number of assistant principals, school size, AYP status? If there are significant differences, can group membership be predicted?), the method of analysis was a MANOVA followed by a Discriminant
Function Analysis (DFA) to determine the extent, if any that the variables play a role in explaining the level of satisfaction of principals in the study. This allows the researcher to determine a relationship between a criterion variable (job satisfaction) and predictor variables (gender, age, etc.).

Procedure

This research was conducted during the 2008-09 school year. The services of the OIR at Northwest Missouri State University were enlisted in the spring of 2009 to generate and conduct the survey. Surveys were generated, emailed, collected, and data from those surveys were analyzed.

The Instrument

The instrumentation for this study was a two-part, self-administered web-based survey. Part one was a researcher-generated individual data (demographic) page and part two was the Minnesota Satisfaction Questionnaire (MSQ) long form. The MSQ is used to measure relative satisfaction on select job characteristics. The long form MSQ consists of 100 items. Each item refers to a reinforcer in the work environment. The respondent indicates how satisfied he is with the reinforcer on his present job. Five response alternatives are presented for each item: “Very Dissatisfied; Dissatisfied; Neither; Satisfied; Very Satisfied”. A five-point Likert format is used to record responses. In addition, a total satisfaction score for the instrument can be computed.

Each long form MSQ scale consists of five items. The items appear in blocks of 20, with items constituting a given scale appearing at 20-item intervals. The following is a list of the MSQ scales. The item following the scale title is the satisfaction item which correlated highest with the scale score, for a group of 1793 employed individuals:
1. Ability utilization- the chance to do something that makes use of my abilities.
2. Achievement- the feeling of accomplishment I get from the job.
3. Activity- being able to keep busy all the time.
4. Advancement- the chances for advancement on this job.
5. Authority- the chance to tell other people what to do.
6. Company policies and practices- the way company policies are put into practice.
7. Compensation- my pay and the amount of work I do.
8. Co-workers- the way my co-workers get along with each other.
9. Creativity- the chance to try my own methods of doing the job.
10. Independence- the chance to work alone on the job.
11. Moral values- being able to do things that don’t go against my conscience.
12. Recognition- the praise I get for doing a good job.
13. Responsibility- the freedom to use my own judgment.
15. Social service- the chance to do things for other people.
16. Social status- the chance to be “somebody” in the community.
17. Supervision-human relations- the way my boss handles his employees.
18. Supervision-technical- the competence of my supervisor in making decisions.
19. Variety- the chance to do different things from time to time.
20. Working conditions- the working conditions.

Scoring of the MSQ can generate a satisfaction score for each of the 20 dimensions listed.

An overall general satisfaction score can also be generated.
Quality Standards

It was important to be aware of any biases that I had prior to engaging in this research. Since I was viewing this study from a positivism paradigm, the very approach forced me to remain objective and be distanced from the data. It was believed that the study would generate some generalizable knowledge and that my findings would be validated by logic, measurement, and the consistency achieved by the consistency of prediction and control (Coghlan & Brannick, 2005).

The MSQ has undergone extensive analysis and has been found to be a reliable measure of general satisfaction (Weiss, Dawis, England, & Lofquist, 1967). The MSQ has been used for years as a tool to measure general satisfaction, and its reliability and validity have been measured numerous times. Using Hoyt reliability coefficients, the data suggest that, in general, the MSQ scales have adequate internal reliabilities. The reliability of some scales, however, tends to vary across groups. It is, therefore, suggested that internal consistency reliability coefficients be computed for a sample representing the group on which the MSQ is used. This study addresses that issue in research question two. The construct validity of the MSQ has been determined for the MSQ showing that group differences were statistically significant at .001 levels for both means and variances on all 20 dimensions of the MSQ (Weiss, et al., 1967).

Summary

The purpose of this study was to investigate job satisfaction among high school principals in Missouri. This chapter included a statement of the problem, the project design, methods, procedures, instrumentation, and addressed quality standards and strategies to maintain quality in research. Along with data compiled using from the
Minnesota Satisfaction Questionnaire (MSQ), demographic data were also compiled.

Chapter 4 will report the findings of the study, and Chapter 5 will present the summary, conclusions, discussions, and recommendations.
CHAPTER FOUR

FINDINGS

The purpose of this chapter is to report the findings of the study. An analysis of the data which were collected in the study of job satisfaction of high school principals in Missouri and a description of the level of satisfaction of high school principals in Missouri is presented. The sections of this chapter are: (a) description of the sample and (b) analysis and findings organized by research questions. The purpose of this study is to add to the limited body of knowledge regarding job satisfaction among high school principals. The study investigates the overall satisfaction level of high school principals in Missouri as measured by the Minnesota Satisfaction Questionnaire (MSQ).

The first part of this chapter contains a report of the range of scores for the MSQ rating scale followed by a description of the sample. The description of the sample is focused around a report of the frequency distribution of the demographic variables. The description of the sample also includes a correlation matrix among all demographic variable combinations. Each significant correlation between variable pairs is discussed in regard to direction and relative strength.

The second part of the chapter presents the analysis of MANOVA followed by a Discriminant Function Analysis (DFA) to determine the extent, if any that the variables play a role in explaining the level of satisfaction of principals in the study. The data will be analyzed to determine if there is a relationship between a criterion variable (job satisfaction) and predictor variables (gender, age, etc.). The Statistical Package for the Social Sciences (SPSS) version 14.0 was used for all data analysis.
Job Satisfaction

Description of Sample

For this study, 499 high school principals in Missouri were contacted via email and asked to complete a two-part survey via the use of a link in the email that directed them to a secure web-based questionnaire conducted by the Office of Institutional Research (OIR) at Northwest Missouri State University. The survey consisted of a set of demographic questions and the 1967 Long-Form Minnesota Satisfaction Questionnaire (MSQ).

Research Question One

One hundred eight high school principals in Missouri self-selected and responded to the survey via the secure link in the email. The response rate for this study was 21.6% (n=108). Table 1 presents the description of the sample for the study and contains the answers to research question one (What are the demographic summary statistics for Missouri high school principals for the following demographic variables: gender, salary level, number of assistant principals, school size, and AYP status?) showing each demographic variable with the number (n) and percentage (%) of respondents in each category.

The age most reported by the respondents (n=39, 36.1%) was in the 46-55 age range followed closely by those in the 36-45 age range (n=38, 35.2%). Eighty-three (76.9%) of the respondents were male, and the largest number of principals were categorized in the $50000-$75000 range (n=41, 38.0%). Most respondents had zero (n=36, 33.3%) or one (n=35, 32.4%) assistant principals. The largest number (n=35,
### Table 1

*Frequency Distributions for Demographic Variables (n=108)*

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Younger than 35</td>
<td>7</td>
<td>6.5</td>
</tr>
<tr>
<td>36-45</td>
<td>38</td>
<td>35.2</td>
</tr>
<tr>
<td>46-55</td>
<td>39</td>
<td>36.1</td>
</tr>
<tr>
<td>Older than 55</td>
<td>24</td>
<td>22.2</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>83</td>
<td>76.9</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>23.1</td>
</tr>
<tr>
<td><strong>Salary range</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $50000</td>
<td>2</td>
<td>1.9</td>
</tr>
<tr>
<td>$50000-$75000</td>
<td>41</td>
<td>38.0</td>
</tr>
<tr>
<td>$75000-$100000</td>
<td>32</td>
<td>29.6</td>
</tr>
<tr>
<td>More than $100000</td>
<td>33</td>
<td>30.6</td>
</tr>
<tr>
<td><strong>Number of Assistant Principals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>36</td>
<td>33.3</td>
</tr>
<tr>
<td>1</td>
<td>35</td>
<td>32.4</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>9.3</td>
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<tr>
<td>3</td>
<td>14</td>
<td>13.0</td>
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<tr>
<td>4</td>
<td>8</td>
<td>7.4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>Size of school</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 or fewer</td>
<td>21</td>
<td>19.4</td>
</tr>
<tr>
<td>201-500</td>
<td>35</td>
<td>32.4</td>
</tr>
<tr>
<td>501-800</td>
<td>17</td>
<td>15.7</td>
</tr>
<tr>
<td>801-1000</td>
<td>9</td>
<td>8.3</td>
</tr>
<tr>
<td>1001-1400</td>
<td>7</td>
<td>6.5</td>
</tr>
<tr>
<td>1401-2000</td>
<td>16</td>
<td>14.8</td>
</tr>
<tr>
<td>Over 2000</td>
<td>3</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Did school make AYP?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>73</td>
<td>67.6</td>
</tr>
<tr>
<td>No</td>
<td>35</td>
<td>32.4</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelors</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Masters</td>
<td>24</td>
<td>22.2</td>
</tr>
<tr>
<td>Specialist</td>
<td>59</td>
<td>54.6</td>
</tr>
<tr>
<td>Doctorate</td>
<td>24</td>
<td>22.2</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>Years as principal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>16</td>
<td>14.8</td>
</tr>
<tr>
<td>4-6</td>
<td>23</td>
<td>21.3</td>
</tr>
<tr>
<td>7-9</td>
<td>24</td>
<td>22.2</td>
</tr>
<tr>
<td>10-15</td>
<td>18</td>
<td>16.7</td>
</tr>
<tr>
<td>15 or more</td>
<td>27</td>
<td>25.0</td>
</tr>
</tbody>
</table>

32.4% of principals that responded work in a high school with an enrollment of 201-500 students. Of the principals that responded, 73 (67.6%) worked in schools that made AYP.
in the 2007-08 school year. All respondents had obtained a minimum of a Masters degree and more than half (n=59, 54.6%) had obtained a Specialist degree. Years as a principal varied with 25.0% (n=27) having more than 15 years, 22.2% (n=24) having 7-9 years, and 21.3% (n=23) having 4-6 years of experience as a principal.

All possible correlations among the dependent and independent variables were calculated to further describe the data. The correlations indicated several significant relationships among the different demographic variables. Table 2 shows the correlations matrix of the demographic variables. When two variables are significantly correlated, the variables are known to be associated with each other, but it does not indicate that if one variable changes it causes another variable to change (Ary, et al., 2002). Caution must be taken when interpreting correlation coefficients because they give no indication of the direction of causality, only correlation (Field, 2005).

There is a significant positive correlation (p<.05) between a number of demographic variables, including size of school and number of assistant principals (r=.912); salary and number of assistant principals (r=.793); salary and size of school (r=.786); years as principal and age (r=.564); salary and education level (r=.517); size of school and education level (r=.491); and number of assistant principals and AYP status (r=.471). There were other significant positive correlations indicated, but those were not as strongly correlated as the variables listed.
Table 2

*Correlations Among Demographic Variables*

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Sal</th>
<th>ScSz</th>
<th>Age</th>
<th>Gen</th>
<th>AstPr</th>
<th>AYP</th>
<th>EdLvl</th>
<th>YrsPrn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sal</td>
<td>1</td>
<td>.786**</td>
<td>.403**</td>
<td>.147</td>
<td>.793**</td>
<td>.341**</td>
<td>.517**</td>
<td>.360**</td>
</tr>
<tr>
<td>ScSz</td>
<td>.786**</td>
<td>1</td>
<td>.398**</td>
<td>.020</td>
<td>.912**</td>
<td>.420**</td>
<td>.491**</td>
<td>.303**</td>
</tr>
<tr>
<td>Age</td>
<td>.403**</td>
<td>.398**</td>
<td>1</td>
<td>-.013</td>
<td>.373**</td>
<td>.115</td>
<td>.160</td>
<td>.564**</td>
</tr>
<tr>
<td>Gen</td>
<td>.147</td>
<td>.020</td>
<td>-.013</td>
<td>1</td>
<td>.005</td>
<td>.042</td>
<td>.231*</td>
<td>-.172</td>
</tr>
<tr>
<td>AstPr</td>
<td>.793**</td>
<td>.912**</td>
<td>.373**</td>
<td>.005</td>
<td>1</td>
<td>.471**</td>
<td>.426**</td>
<td>.274**</td>
</tr>
<tr>
<td>AYP</td>
<td>.341**</td>
<td>.420**</td>
<td>.115</td>
<td>.042</td>
<td>.471**</td>
<td>1</td>
<td>.297**</td>
<td>.120</td>
</tr>
<tr>
<td>EdLvl</td>
<td>.517**</td>
<td>.491**</td>
<td>.160</td>
<td>.231*</td>
<td>.426**</td>
<td>.297**</td>
<td>1</td>
<td>.160</td>
</tr>
<tr>
<td>YrsPrn</td>
<td>.360**</td>
<td>.303**</td>
<td>.564**</td>
<td>-.172</td>
<td>.274**</td>
<td>.120</td>
<td>.160</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Sal=Salary; SchSz=School Size; Age=Age Range; Gen=Gender; AstPrn=Number of Assistant Principals; AYP=Made AYP; EdLvl=Education Level; YrsPrn=Years as Principal.

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed)

N=108

*Research Question Two*

For research question two (Is the Minnesota Satisfaction Questionnaire (MSQ) reliable for Missouri high school principals?), a Cronbach’s alpha analysis was conducted to test the reliability of the instrument. Cronbach’s alpha analysis (r=.983) revealed a
high reliability coefficient, indicating that the MSQ had internal consistent reliability for this particular group, high school principals.

*Research Question Three*

For research question three (What is the general satisfaction level of Missouri high school principals as measured by the twenty scales of the MSQ?), summary statistics were calculated by adding the scores for 20 specific scales on the MSQ. Table 3 shows the summary statistics of general satisfaction in the study. Overall, high school principals in Missouri are generally satisfied with their jobs, as indicated by the mean score of 65.11 for all principals (n=108). This section will look at general satisfaction for different demographic variables.

*Age*

Principals in the 36-45 age group had a general satisfaction score (M=63.06) below the overall satisfaction score for all principals in the study (M=65.11). All other age groups had general satisfaction scores above the overall mean.

*Gender*

Men showed a higher general satisfaction score (M=65.25) than women (M=64.66).

*Salary*

General satisfaction scores increased with salary, with a low score for those making less than $50,000 (M=54.45) up through the $75,000-$100,000 category (M=66.15), but then decreased for principals making over $100,000 (M=65.16).
Job Satisfaction

Assistant Principals

While most principals in the study had 0 or 1 assistant principals (n=36 and n=35), principals with 3 assistant principals had the highest general satisfaction scores (M=68.05). General satisfaction declined with 4 assistant principals (M=66.11) and had the lowest general satisfaction score with 5 or more assistant principals (M=62.63).

School Size

Principals of schools with 1001-1400 students had the highest general satisfaction score (M=70.30) and general satisfaction scores were the lowest for principals in schools with 501-800 students (M=62.85) and over 2000 students (M=61.30).

AYP Status

Principals of schools that made AYP had higher general satisfaction scores (M=65.45) than principals of schools that did not make AYP (M=64.41).

Education Level

Principals with a Masters degree had a higher general satisfaction score (M=67.83) than principals with a Specialist (M=64.19) and principals with a Doctorate (M=64.86).

Years as a Principal

Principals with 7-9 years of experience had the lowest general satisfaction score (M=61.71) while principals with 10-15 years (M=66.13) and more than 15 years of experience (M=67.56) had the highest general satisfaction scores.
### Table 3

**Summary Statistics of General Satisfaction Level by Demographic Characteristics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>108</td>
<td>65.11</td>
<td>8.87</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;35</td>
<td>7</td>
<td>65.17</td>
<td>4.80</td>
</tr>
<tr>
<td>36-45</td>
<td>38</td>
<td>63.06</td>
<td>8.79</td>
</tr>
<tr>
<td>46-55</td>
<td>39</td>
<td>66.83</td>
<td>9.02</td>
</tr>
<tr>
<td>&gt;55</td>
<td>24</td>
<td>65.56</td>
<td>9.42</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>83</td>
<td>65.25</td>
<td>9.48</td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>64.66</td>
<td>6.58</td>
</tr>
<tr>
<td><strong>Salary</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;$50,000</td>
<td>2</td>
<td>54.45</td>
<td>7.85</td>
</tr>
<tr>
<td>$50,000-$75,000</td>
<td>41</td>
<td>64.78</td>
<td>7.92</td>
</tr>
<tr>
<td>$75,000-$100,000</td>
<td>32</td>
<td>66.15</td>
<td>10.07</td>
</tr>
<tr>
<td>&gt;$100,000</td>
<td>33</td>
<td>65.16</td>
<td>8.72</td>
</tr>
<tr>
<td><strong>Assistant Principals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>36</td>
<td>64.95</td>
<td>10.41</td>
</tr>
<tr>
<td>1</td>
<td>35</td>
<td>64.31</td>
<td>6.82</td>
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<tr>
<td>2</td>
<td>10</td>
<td>65.18</td>
<td>7.11</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
<td>68.05</td>
<td>10.72</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>66.11</td>
<td>8.02</td>
</tr>
<tr>
<td>5 or more</td>
<td>6</td>
<td>62.63</td>
<td>10.14</td>
</tr>
<tr>
<td><strong>School Size</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 or less</td>
<td>21</td>
<td>65.38</td>
<td>10.26</td>
</tr>
<tr>
<td>201-500</td>
<td>35</td>
<td>64.90</td>
<td>9.19</td>
</tr>
<tr>
<td>501-800</td>
<td>17</td>
<td>62.85</td>
<td>4.94</td>
</tr>
<tr>
<td>801-1000</td>
<td>9</td>
<td>65.38</td>
<td>7.21</td>
</tr>
<tr>
<td>1001-1400</td>
<td>7</td>
<td>70.30</td>
<td>12.13</td>
</tr>
<tr>
<td>1401-2000</td>
<td>16</td>
<td>65.94</td>
<td>9.63</td>
</tr>
<tr>
<td>&gt;2000</td>
<td>3</td>
<td>61.30</td>
<td>2.94</td>
</tr>
<tr>
<td><strong>Made AYP?</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>73</td>
<td>65.45</td>
<td>9.36</td>
</tr>
<tr>
<td>No</td>
<td>35</td>
<td>64.41</td>
<td>7.83</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
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</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>60.80</td>
<td>0.00</td>
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<tr>
<td>Masters</td>
<td>24</td>
<td>67.83</td>
<td>10.12</td>
</tr>
<tr>
<td>Specialist</td>
<td>59</td>
<td>64.19</td>
<td>7.92</td>
</tr>
<tr>
<td>Doctorate</td>
<td>24</td>
<td>64.86</td>
<td>9.71</td>
</tr>
<tr>
<td><strong>Years as Principal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>16</td>
<td>64.20</td>
<td>6.86</td>
</tr>
<tr>
<td>4-6</td>
<td>23</td>
<td>65.63</td>
<td>9.77</td>
</tr>
<tr>
<td>7-9</td>
<td>24</td>
<td>61.71</td>
<td>5.51</td>
</tr>
<tr>
<td>10-15</td>
<td>18</td>
<td>66.13</td>
<td>11.59</td>
</tr>
<tr>
<td>&gt;15</td>
<td>27</td>
<td>67.56</td>
<td>9.09</td>
</tr>
</tbody>
</table>
Research Question Four

For research question number four (What is the satisfaction level of Missouri high school principals as measured by the twenty scale scores of the MSQ?), summary statistics were calculated for each of the twenty scale scores of the MSQ. Each of the dimensions has a mean score that can fall in a range from 5 to 25. Table 4 shows the mean satisfaction scores for the respondents in each of the 20 dimensions measured by the MSQ.

The dimensions that Missouri high school principals rated as having the most satisfaction with were social service (M=19.91), achievement (M=19.27), and activity (M=19.26). This indicates that Missouri high school principals are most satisfied with the chance to do things for others (social service), the feeling of accomplishment they get from their job (achievement), and being able to keep busy all the time (activity).

Advancement (M=14.29), compensation (M=14.54), security (M=14.84), and supervision-technical (M=14.89) ranked as the lowest scoring areas of satisfaction for Missouri high school principals. This indicates that they are least satisfied with the chances for advancement on their job (advancement), their pay for the amount of work they do (compensation), the way their job provides for steady employment (security), and the competence of their supervisors in making decisions (supervision-technical). For the other fifteen dimensions, high school principals in Missouri showed general satisfaction as their mean scores ranged from 15.97 to 18.96.
Table 4

*Rank Order of Satisfaction Scores for each MSQ Dimension (n=108)*

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Service</td>
<td>108</td>
<td>19.91</td>
<td>2.43</td>
</tr>
<tr>
<td>Achievement</td>
<td>108</td>
<td>19.27</td>
<td>2.61</td>
</tr>
<tr>
<td>Activity</td>
<td>108</td>
<td>19.26</td>
<td>2.29</td>
</tr>
<tr>
<td>Variety</td>
<td>108</td>
<td>18.96</td>
<td>2.24</td>
</tr>
<tr>
<td>Ability Utilization</td>
<td>108</td>
<td>18.89</td>
<td>2.79</td>
</tr>
<tr>
<td>Moral Values</td>
<td>108</td>
<td>18.82</td>
<td>2.81</td>
</tr>
<tr>
<td>Responsibility</td>
<td>108</td>
<td>18.59</td>
<td>2.31</td>
</tr>
<tr>
<td>Co-workers</td>
<td>108</td>
<td>17.86</td>
<td>2.75</td>
</tr>
<tr>
<td>Creativity</td>
<td>108</td>
<td>17.53</td>
<td>2.79</td>
</tr>
<tr>
<td>Authority</td>
<td>108</td>
<td>17.25</td>
<td>2.48</td>
</tr>
<tr>
<td>Independence</td>
<td>108</td>
<td>16.83</td>
<td>3.02</td>
</tr>
<tr>
<td>Supervision-Human Relations</td>
<td>108</td>
<td>16.55</td>
<td>4.91</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>108</td>
<td>16.49</td>
<td>2.88</td>
</tr>
<tr>
<td>Social Status</td>
<td>108</td>
<td>16.16</td>
<td>2.97</td>
</tr>
<tr>
<td>Recognition</td>
<td>108</td>
<td>15.97</td>
<td>3.15</td>
</tr>
<tr>
<td>Supervision-Technical</td>
<td>108</td>
<td>14.89</td>
<td>4.00</td>
</tr>
<tr>
<td>Security</td>
<td>108</td>
<td>14.87</td>
<td>3.10</td>
</tr>
<tr>
<td>Compensation</td>
<td>108</td>
<td>14.54</td>
<td>3.47</td>
</tr>
<tr>
<td>Advancement</td>
<td>108</td>
<td>14.29</td>
<td>3.37</td>
</tr>
</tbody>
</table>

*Research Question Five*

For research question five (Are there differences by demographic in Missouri high school principals’ satisfaction as measured by the MSQ for the following demographic variables: age, gender, salary level, number of assistant principals, school size, AYP status? If there are significant differences, can group membership be predicted?), the method of analysis was a MANOVA followed by a Discriminant Function Analysis (DFA) to determine the extent, if any, that the variables play a role in explaining the level of satisfaction of principals in the study. This provided the ability to determine a relationship between a criterion variable (job satisfaction) and predictor variables (gender, age, etc.).
Age

The MANOVA analysis of the fixed factor of age revealed one independent variable that showed significance (p<.05), compensation (p=.008). Discriminant functional analysis indicated three canonical discriminant functions, but none were significant (p<.05) according to Wilks’ Lambda analysis. Table 5 shows the summary of Wilks’ Lambda analysis for age.

Table 5
Wilk’s Lambda Analysis for Age

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks’ Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 3</td>
<td>.491</td>
<td>67.536</td>
<td>60</td>
<td>.235</td>
</tr>
<tr>
<td>2 through 3</td>
<td>.710</td>
<td>32.498</td>
<td>38</td>
<td>.721</td>
</tr>
<tr>
<td>3</td>
<td>.886</td>
<td>11.466</td>
<td>18</td>
<td>.874</td>
</tr>
</tbody>
</table>

*p>.05

Gender

The MANOVA analysis of the fixed factor of gender revealed no significant (p<.05) independent variables. According to Field (2005), a discriminant functional analysis cannot be done with an absence of significant independent variables.

Salary

The MANOVA analysis of the fixed factor of salary revealed six significant (p<.05) independent variables: compensation (p=.001); working conditions (p=.001); supervision-human relations (p=.013); company policies and practices (p=.022); supervision-technical (p=.026); and independence (p=.039). Shown in Table 6, the discriminant function analysis method yielded three significant functions that discriminated between categories. It was found that Function 1 was defined by two variables (Compensation, .389; and Company Policies, -.299) and was determined to be
related to external working rewards. Function 2 was defined by three variables (Working Conditions, .524; Supervision-Human Resources, .271; and Security, -.247) and was determined to be related to satisfaction with supervisors. Function 3 was defined by five variables (Independence, .649; Creativity, .510; Authority, .464; Variety, .462; and Moral Values, .442) and was determined to be related to ability to implement ideas.

Table 6

*Wilks' Lambda Analysis For Salary*

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks' Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 3</td>
<td>.315</td>
<td>109.595</td>
<td>60</td>
<td>.000*</td>
</tr>
<tr>
<td>2 through 3</td>
<td>.624</td>
<td>44.796</td>
<td>38</td>
<td>.208</td>
</tr>
<tr>
<td>3</td>
<td>.885</td>
<td>11.656</td>
<td>18</td>
<td>.864</td>
</tr>
</tbody>
</table>

*p<.05

When looking at the canonical correlations by functions of group centroids as shown by Table 7, as salary increases, there is a positive correlation with satisfaction of external working rewards as salary increases. There is also a generally positive correlation with satisfaction with supervisors as salary increases. With the function of ability to implement ideas, there is an increase with satisfaction of the ability to implement ideas as salary increases through the $75000-$100000 range, but it then decreases at the >$100000 range.
Job Satisfaction

Table 7

*Functions at Group Centroids-Salary*

<table>
<thead>
<tr>
<th>Salary</th>
<th>Function 1</th>
<th>Function 2</th>
<th>Function 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50000</td>
<td>-.973</td>
<td>-4.481</td>
<td>-.505</td>
</tr>
<tr>
<td>50000-75000</td>
<td>-1.060</td>
<td>.255</td>
<td>-.187</td>
</tr>
<tr>
<td>75000-100000</td>
<td>.108</td>
<td>-.115</td>
<td>.541</td>
</tr>
<tr>
<td>&gt;100000</td>
<td>1.271</td>
<td>.066</td>
<td>-.262</td>
</tr>
</tbody>
</table>

Unstandardized canonical discriminant functions evaluated at group means

*Number of Assistant Principals*

The MANOVA analysis of the fixed factor of number of assistant principals revealed one significant (p<.05) independent variable, compensation (p=.021). Shown in Table 8, discriminant functional analysis indicated five significant functions that discriminated between categories. It was determined that Function 1 was defined by three variables (Compensation, .409; Co-workers, .326; and Working Conditions, .315), and all were determined to all be related to external working rewards. Function 2 was defined by two variables (Company Policies, .294; and Ability Utilization, .244) and both were determined to all be related to company practices. Function 3 was defined by three variables (Social Status, .366; Responsibility, .286; and Activity, .223) and all three were determined to be related to status within company. Function 4 was defined by six variables (Advancement, .387; Recognition, .371; Achievement, .343; Supervision-Technical, .306; Security, .304; and Supervision-HR, .270) and all were determined to be related to external achievement rewards. Function 5 was defined by the variable of Social Service (.242).
Table 8

Wilks' Lambda Analysis For Number of Assistant Principals

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks' Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 5</td>
<td>.257</td>
<td>127.844</td>
<td>100</td>
<td>.032*</td>
</tr>
<tr>
<td>2 through 5</td>
<td>.451</td>
<td>74.871</td>
<td>76</td>
<td>.515</td>
</tr>
<tr>
<td>3 through 5</td>
<td>.660</td>
<td>39.019</td>
<td>54</td>
<td>.938</td>
</tr>
<tr>
<td>4 through 5</td>
<td>.855</td>
<td>14.755</td>
<td>34</td>
<td>.998</td>
</tr>
<tr>
<td>5</td>
<td>.956</td>
<td>4.215</td>
<td>16</td>
<td>.998</td>
</tr>
</tbody>
</table>

*p<.05

As shown in Table 9, analysis of canonical correlations determined that Function 1 showed that satisfaction with external rewards was negatively correlated with zero or one assistant principals, but was most positively correlated as the number of assistant principals increased to three. The satisfaction with external rewards was still positively correlated, but decreased with four or more assistant principals. Function 2 showed that satisfaction with company practices was positively correlated with zero, two, or three assistant principals, but was negatively correlated with one, four, or five or more, with the largest negative effect observed when there are five or more assistant principals. Function 3 showed that satisfaction with status within the company was positively correlated with one, two, or three assistant principals, with the largest positive correlation with two assistant principals. Satisfaction with status within the company was negatively correlated with zero, four, and most negatively with five or more assistant principals.

Function 4 showed that satisfaction with external achievement rewards was negatively correlated with two and five or more assistant principals, and positively correlated with zero, one, three, or four assistant principals, with the largest positive correlation with four assistant principals. Function 5 showed that satisfaction with social service was negatively correlated with one and three assistant principals. Satisfaction
with social service was positively correlated with all other numbers of assistant
principals, most positively with four assistant principals.

Table 9

*Functions at Group Centroids-Assistant Principals*

<table>
<thead>
<tr>
<th>Assistant Principals</th>
<th>Function 1</th>
<th>Function 2</th>
<th>Function 3</th>
<th>Function 4</th>
<th>Function 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>.00</td>
<td>-.681</td>
<td>.645</td>
<td>-.328</td>
<td>.031</td>
<td>.017</td>
</tr>
<tr>
<td>1.00</td>
<td>-.431</td>
<td>-.745</td>
<td>.257</td>
<td>.097</td>
<td>-.102</td>
</tr>
<tr>
<td>2.00</td>
<td>.254</td>
<td>.398</td>
<td>1.067</td>
<td>-.651</td>
<td>.252</td>
</tr>
<tr>
<td>3.00</td>
<td>1.660</td>
<td>.545</td>
<td>.127</td>
<td>.154</td>
<td>-.288</td>
</tr>
<tr>
<td>4.00</td>
<td>1.114</td>
<td>-.376</td>
<td>-.163</td>
<td>.672</td>
<td>.597</td>
</tr>
<tr>
<td>5 or more</td>
<td>1.007</td>
<td>-1.020</td>
<td>-1.417</td>
<td>-.816</td>
<td>.045</td>
</tr>
</tbody>
</table>

Unstandardized canonical discriminant functions evaluated at group means

*School Size*

The MANOVA analysis of the fixed factor of school size indicated three
significant (p<.05) independent variables; compensation (p=.000), working conditions
(p=.020), and independence (p=.025). Shown in Table 10, discriminant functional
analysis indicated six significant functions that discriminated between categories. It was
determined that Function 1 was defined by one variable (Working Conditions, .308) and
was determined to be related to external satisfaction with working conditions. Function 2
was defined by four variables (Compensation, .405; Independence, .397; Creativity, .350;
and Activity, .343) and was determined to be related to internal satisfaction with the
ability to implement original ideas. Function 3 was defined by two variables (Social
Status, .335; and Compensation, .332) and was related to satisfaction with how principals
feel valued. Function 4 was defined by one variable, Company Policies, .316, and
determined to be related to satisfaction with company policies. Function 5 was defined by
two variables (Social Status, .354, and Authority, .298) and determined to be related to satisfaction with influence. Function 6 was defined by four variables (Security, .536; Ability Utilization, .423; Co-workers, .348; and Advancement, .305) and was defined by satisfaction with career development.

Table 10

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks' Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 6</td>
<td>.161</td>
<td>170.550</td>
<td>120</td>
<td>.002*</td>
</tr>
<tr>
<td>2 through 6</td>
<td>.366</td>
<td>94.003</td>
<td>95</td>
<td>.510</td>
</tr>
<tr>
<td>3 through 6</td>
<td>.519</td>
<td>61.397</td>
<td>72</td>
<td>.809</td>
</tr>
<tr>
<td>4 through 6</td>
<td>.676</td>
<td>36.635</td>
<td>51</td>
<td>.935</td>
</tr>
<tr>
<td>5 through 6</td>
<td>.807</td>
<td>20.061</td>
<td>32</td>
<td>.950</td>
</tr>
<tr>
<td>6</td>
<td>.919</td>
<td>7.887</td>
<td>15</td>
<td>.928</td>
</tr>
</tbody>
</table>

*p<.05

As shown in Table 11, analysis of canonical correlations determined that Function 1 showed that there was a negative correlation with external satisfaction with working conditions with smaller school sizes, but once school size was more than 800, there was a positive correlation. Function 2 showed the largest negative correlation with the ability to implement original ideas in the largest schools (>2000) and a positive correlation at schools with less than 200 and 800-1400 students. Function 3 showed almost an inverse bell curve with how principals felt they were valued. Schools with 801-1000 had the largest positive correlation and showed a positive correlation from 200-1400 students, but the largest negative correlations with satisfaction about feeling of value were at schools with <200 students and >2000 students.

Function 4 showed the largest negative correlation with satisfaction with company policies at schools >2000 students. There was also a negative correlation at schools with
501-800 students and 1001-1400 students and all other school sizes showed a positive correlation with satisfaction with company policies. Function 5 showed that satisfaction with influence had the largest negative correlation at schools >2000 students and also showed a negative correlation as schools with <200 and 801-1000 students. The largest positive correlation with satisfaction with influence was at schools with 1001-1400 students and also showed a positive correlation at schools with 201-500, 501-800, and 1401-2000. Function 6 showed that satisfaction with career development was the most positively correlated at schools with >2000 and 1001-1400 students. Satisfaction with career development was most negatively correlated at schools with 501-800 students.

Table 11
*Functions at Group Centroids-School Size*

<table>
<thead>
<tr>
<th>School Size</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;200</td>
<td>-1.098</td>
<td>.603</td>
<td>-.575</td>
<td>.198</td>
<td>-.309</td>
<td>-.082</td>
</tr>
<tr>
<td>201-500</td>
<td>-.655</td>
<td>-.563</td>
<td>.206</td>
<td>.220</td>
<td>.174</td>
<td>.147</td>
</tr>
<tr>
<td>501-800</td>
<td>-.199</td>
<td>-.146</td>
<td>.159</td>
<td>-.680</td>
<td>.144</td>
<td>-.451</td>
</tr>
<tr>
<td>801-1000</td>
<td>.968</td>
<td>.571</td>
<td>1.327</td>
<td>.203</td>
<td>-.618</td>
<td>-.014</td>
</tr>
<tr>
<td>1001-1400</td>
<td>.413</td>
<td>1.457</td>
<td>.077</td>
<td>-.523</td>
<td>.662</td>
<td>.570</td>
</tr>
<tr>
<td>1401-2000</td>
<td>2.140</td>
<td>-.120</td>
<td>-.493</td>
<td>.340</td>
<td>.140</td>
<td>-.130</td>
</tr>
<tr>
<td>&gt;2000</td>
<td>1.174</td>
<td>-1.298</td>
<td>-.816</td>
<td>-1.301</td>
<td>-1.127</td>
<td>.815</td>
</tr>
</tbody>
</table>

Unstandardized canonical discriminant functions evaluated at group means

**AYP Status**

The MANOVA analysis of the fixed factor of AYP status indicated three significant (p<.05) independent variables; supervision-human relations (p=.003), supervision-technical (p=.011), and company policies (p=.040). Discriminant functional analysis indicated one canonical discriminant function, but it was not significant (p<.05)
according to Wilks’ Lambda analysis. Table 12 shows the summary of Wilks’ Lambda analysis for AYP status.

Table 12
*Wilks’ Lambda Analysis for AYP status*

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks’ Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.732</td>
<td>30.015</td>
<td>20</td>
<td>.070</td>
</tr>
</tbody>
</table>

*p<.05

*Education Level*

The MANOVA analysis of the fixed factor of education level indicated two significant (p<.05) independent variables, supervision-human resources (p=.018) and supervision-technical (.027). Shown in Table 13, discriminant functional analysis indicated two significant canonical discriminant functions that discriminated between categories. It was determined that Function 1 was defined by three variables (Supervision-HR, .425; Supervision-Technical, .417; and Company Policies, .346) and determined to be related to satisfaction with supervisors. Function 2 was defined by two variables (Moral Values, -.320 and Authority, .258) and determined to be related to satisfaction with affecting society.

Table 13
*Wilks’ Lambda for Education Level*

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks’ Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 2</td>
<td>.522</td>
<td>61.426</td>
<td>40</td>
<td>.016*</td>
</tr>
<tr>
<td>2</td>
<td>.796</td>
<td>21.522</td>
<td>19</td>
<td>.309</td>
</tr>
</tbody>
</table>

*p<.05

As shown in Table 14, canonical correlation analysis of Function 1 determined that satisfaction with one’s employer was positively correlated when a principal had a Masters degree, but then was negatively correlated at the Specialist level and most
negatively correlated at the doctorate level. Function 2 showed a positive correlation at the Specialist level with satisfaction related to being able to affect society and a negative correlation with satisfaction related to affecting society at the Masters and doctorate level.

Table 14
*Functions at Group Centroids-Education Level*

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Function 1</th>
<th>Function 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>1.262</td>
<td>-.290</td>
</tr>
<tr>
<td>Specialist</td>
<td>-.203</td>
<td>.427</td>
</tr>
<tr>
<td>Doctorate</td>
<td>-.763</td>
<td>-.759</td>
</tr>
</tbody>
</table>

Unstandardized canonical discriminant functions evaluated at group means

*Years as a Principal*

The MANOVA analysis of the fixed factor of education level indicated four significant (p<.05) independent variables. The variables are social status (p=.004), recognition (p=.007), compensation (p=.017), and co-workers (p=.017). Shown in Table 15, discriminant functional analysis indicated four significant canonical discriminant functions that discriminated between categories. Function 1 was defined by four variables (Social Status, .438; Compensation, .367; Co-workers, .360; and Authority, .315) and was determined to be related to satisfaction with positional power. Function 2 was defined by two variables (Recognition, .416, and Social Service, .332) and was determined to be related to satisfaction with recognition for helping others. Function 3 was defined by two variables (Security, -.222, and Supervision-Technical, .213) and was determined to be related to satisfaction with their supervisors. Function 4 was defined by one variable, Variety, -.181, and related to satisfaction with the variety of their work.
Table 15
*Wilks' Lambda Analysis for Years as Principal*

<table>
<thead>
<tr>
<th>Test of Function(s)</th>
<th>Wilks' Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 4</td>
<td>.303</td>
<td>112.804</td>
<td>80</td>
<td>.009*</td>
</tr>
<tr>
<td>2 through 4</td>
<td>.539</td>
<td>58.411</td>
<td>57</td>
<td>.423</td>
</tr>
<tr>
<td>3 through 4</td>
<td>.714</td>
<td>31.856</td>
<td>36</td>
<td>.666</td>
</tr>
<tr>
<td>4</td>
<td>.908</td>
<td>9.149</td>
<td>17</td>
<td>.935</td>
</tr>
</tbody>
</table>

*p<.05

As shown in Table 16, canonical correlation analysis of Function 1 showed that principals in years 1-3 exhibited the largest negative correlation with satisfaction with positional power and principals with 15 or more years showed the largest positive correlation for satisfaction with positional power. Function 2 showed the largest positive correlation with satisfaction with recognition for helping others by principals in years 1-3 and also showed a positive correlation for principals with 15 or more years as a principal. Principals in years 4-15 showed a negative correlation. Function 3 showed a positive correlation with satisfaction with satisfaction with supervisors for principals in years 10-15, 4-6, and 1-3. There was a negative correlation for satisfaction with supervisors for those in years 7-9 and 15 or more. Function 4 showed a negative correlation with satisfaction with the variety of work for principals in years 1-3 and 4-6, but showed a positive correlation for principals in years 7-9, 10-15, and 15 and more. Principals in years 10-15 had the highest positive correlation with satisfaction with the variety of work.
Table 16

*Functions at Group Centroids-Years as Principal*

<table>
<thead>
<tr>
<th>Years as Principal</th>
<th>Function 1</th>
<th>Function 2</th>
<th>Function 3</th>
<th>Function 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>-.348</td>
<td>1.007</td>
<td>.080</td>
<td>-.018</td>
</tr>
<tr>
<td>4-6</td>
<td>.243</td>
<td>-.243</td>
<td>.440</td>
<td>-.509</td>
</tr>
<tr>
<td>7-9</td>
<td>-.855</td>
<td>-.740</td>
<td>-.393</td>
<td>.121</td>
</tr>
<tr>
<td>10-15</td>
<td>.515</td>
<td>-.065</td>
<td>.765</td>
<td>.480</td>
</tr>
<tr>
<td>15 or more</td>
<td>1.008</td>
<td>.312</td>
<td>-.583</td>
<td>.018</td>
</tr>
</tbody>
</table>

Unstandardized canonical discriminant functions evaluated at group means
CHAPTER FIVE
SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

A summary of the purpose and discussion of the findings of this study are presented in this chapter. The discussion of findings section presents the demographics of the population studied and the findings for each research question in relation to the literature review. This is followed by conclusions based on the analysis of the data collected from high school principals in the state of Missouri. The recommendations section indicates suggestions for further study related to this topic.

Summary of Study and Discussion of Findings

The purpose of this study was to determine the level of job satisfaction among high school principals in the state of Missouri. Specifically, the study investigated: (a) the demographic summary statistics for Missouri high school principals for the following demographic variables: age, gender, salary level, number of assistant principals, school size, AYP status, education level, and years as a principal; (b) the reliability of the Minnesota Satisfaction Questionnaire (MSQ) for studying Missouri high school principals; (c) the general satisfaction level of Missouri high school principals as measured by the MSQ; (d) the satisfaction level of Missouri high school principals as measured by the twenty scale scores of the MSQ; (e) relationships by demographic on Missouri high school principals’ satisfaction as measured by the MSQ for the demographic variables of age, gender, salary level, number of assistant principals, school size, AYP status, education level, and years as a principal. Each of these questions was studied using descriptive statistics. These questions were analyzed using frequency
distributions, Cronbach’s alpha analysis, summary scores of the MSQ, MANOVA, and discriminant functional analysis.

The population for this study was high school principals for all public high school principals in the state of Missouri as identified by the Missouri Department of Elementary and Secondary Education (DESE) for the 2008-09 school year (n=499). Of this group, 21.6% (n=108) self-selected and responded to an email with a link to a secure web-based questionnaire. One follow up email was also sent to encourage the non-respondents to respond. Respondents answered 100 questions on the 1967 MSQ long form and 8 demographic questions. These answers were collected by the Northwest Missouri State University Office of Institutional Research (OIR). Answers were converted into blind data by the OIR and shared with the researcher in spreadsheet format. This data were then loaded in SPSS for statistical analysis.

The demographic data collected in this study indicated that the principals that responded were predominantly males and were in the 46-55 age range or 36-45 age range. Thirty-eight percent of the respondents earned a salary between $50000 and $75000 and had zero or one assistant principals. Most worked in a high school with 201-500 students and the majority worked in schools that made AYP during the 2007-08 school year. More than half of the respondents had a Specialist degree and the number of years as a principal was evenly balanced.

Correlations among the dependent and independent variables were calculated to discover correlations among the demographic data. Significant correlations among variables indicate they are associated with each other, but do not necessarily indicate causation (Fields, 2005). There is a significant correlation between a number of
demographic variables, including size of school and number of assistant principals; salary and number of assistant principals; salary and size of school; years as principal and age; salary and education level; size of school and education level; and number of assistant principals and AYP status. Some of these were not surprising, for example, one would expect the principal of a larger school to have more assistant principals and make more money, and one would also not be surprised that a principal that has more education would be at a larger school and make more money.

The MSQ was found to be reliable as a tool to study job satisfaction among high school principals in Missouri. Cronbach’s alpha analysis revealed a high reliability coefficient, indicating that the MSQ had internal consistent reliability for this particular group, high school principals.

The data from the MSQ were analyzed to determine the overall level of job satisfaction of high school principals in Missouri. While this study indicated general satisfaction, it was slightly lower than previous studies. Newby (1999) found that middle school principals in Virginia were satisfied with their job and Bowling (2007) found middle school principals in Virginia were very satisfied. (Stemple (2004) studied high school principals in Virginia and found them to be generally satisfied, but still at a higher level than the respondents in this study.

Data from the MSQ were analyzed to determine satisfaction scores for Missouri high school principals for each of the twenty dimensions measured by the MSQ. The dimensions that Missouri high school principals rated as having the most satisfaction with were social service, achievement, and activity. This indicates that Missouri high school principals are most satisfied with the chance to do things for others (social service), the
feeling of accomplishment they get from their job (achievement), and being able to keep busy all the time (activity). Advancement, compensation, security, and supervision-technical ranked as the lowest scoring areas of satisfaction for Missouri high school principals. This indicates that they are least satisfied with the chances for advancement on their job (advancement), their pay for the amount of work they do (compensation), the way their job provides for steady employment (security), and the competence of their supervisors in making decisions (supervision-technical). This was consistent with Stemple’s findings (2004) in that activity and social service were two of the highest rated dimensions and that compensation was the lowest rated dimension in his study of high school principals in Virginia. Lastly, the data from the MSQ were analyzed to determine any relationships for the demographic variables that were analyzed in this study.

Age and Gender

For the factor of age, there were no discriminant functions according to Wilks’ Lambda analysis. For the factor of gender, there were no significant independent variables, thus there were no discriminant functions.

Salary

For the factor of salary, there were three discriminant functions. As salary increases, there is more satisfaction with compensation, which is would seem to be pragmatic. As salary increases, the trend is for an increase in satisfaction with working conditions. This could be due to principals feeling more satisfied with their conditions if they are making more money. Principals also showed an increase with satisfaction of independence up to the $75000-$100000 range, but then there was a negative correlation with that satisfaction for principals making over $100000.
Job Satisfaction

Number of Assistant Principals

For the factor of number of assistant principals, there were five significant functions identified. For the function of external working rewards, principals with two or more assistant principals generally had a positively correlated level of satisfaction with external working rewards. For the function of company practices, principals with five or more assistant principals had the most negatively correlated level of satisfaction. Conversely, principals with zero assistant principals had the most positively level of satisfaction with company practices. These principals indicate more satisfaction with their ability utilization and company policies, possibly leading to more satisfaction with those practices.

For the factor of status within the company, principals with two assistant principals had the most positively correlated level of satisfaction and principals with five or more assistant principals had the most negatively correlated level of status within the company. This could be due to principals in schools with two assistants being in a district where there is only one high school and the role of principal of the high school has more social status and responsibility. Principals in a school with five or more assistant principals could be in a district with multiple high schools, and thus, multiple high school principals in the district, and also, numerous supervisors above them, lessening their satisfaction with their status. For the function of external achievement rewards, there was a negative correlation with satisfaction of external achievement rewards with principals with two or five or more principals. Principals with four assistant principals had the most positively correlated level of satisfaction with external achievement rewards. Conclusions could not be drawn from this info. For the function of satisfaction with social service,
there was a negative correlation with one and three assistant principals. Principals with four assistant principals had the most positively correlated level of satisfaction with social service. No conclusions could be drawn from this information. The two functions that conclusions could not be drawn about, satisfaction with external achievement rewards and social service, were both most positively correlated with principals that had four assistant principals.

*School Size*

For the factor of school size, there were six significant functions identified. For the function of working conditions, principals at schools that had <200 students had the most negatively correlated level of satisfaction. Conversely, principals at schools with 1401-2000 and >2000 had the largest positive correlation with satisfaction of working conditions, possibly supporting the previously stated theory that the larger the school, the more resources possibly available to principals. For the function of ability to implement original ideas, principals at schools >2000 students had the most negatively correlated level of satisfaction. Again, principals at schools that large may be only one part of many levels of supervision and may feel an inability to easily implement those original ideas. Principals at schools with 1001-1400 and <200 students had the most positively correlated satisfaction. This could possibly be explained by satisfaction with independence, creativity, and activity. For the function of how principals feel they are valued, positive correlations were shown by schools with 201-1400 students, but the largest positive correlation with satisfaction was indicated by principals at schools with 801-1000 students. The largest negative correlations were shown by schools at both extremes of the factor of school size. This might be explained as principals at smaller
Job Satisfaction

schools indicated that they are not satisfied with social status and compensation, and that at very large schools they are simply one principal in the midst of a larger group of other principals and supervisors in their district leading to dissatisfaction with social status.

For the function of company policies, the largest negative correlation with satisfaction was indicated by principals at schools that had a student size of >2000. The largest negative correlation with satisfaction with influence was shown by principals at schools with >2000 students. Similar to their feelings about satisfaction with how they feel they are valued, it is possible that principals in the largest schools feel that they are one of several principals and a larger group of many supervisors, limiting their satisfaction with how much influence they feel they have. Conversely, principals at schools with >2000 students showed the most positive correlation with the function of satisfaction with career development. The larger schools may have more internal professional development opportunities and more resources to provide career development for those principals. They also indicate more satisfaction with security, advancement, and ability utilization, leading to the satisfaction with career development.

AYP Status

According to this study, there were no significant functions for the factor of AYP status, thus, there were no functions to analyze.

Education Level

For the factor of education level, there were two significant functions identified. For the function of satisfaction with supervisors, principals with a Masters degree showed a positive correlation with satisfaction while those with a Specialist and a doctorate both showed a negative correlation. Principals with a Masters degree show more satisfaction
with supervision and company policies, leading to more satisfaction with supervisors. The negative correlation becomes larger at the doctorate level, indicating less satisfaction with supervisors for those principals. Principals with doctorates often have several layers of supervision above them as they are often in larger districts with larger leadership structures, possibly explaining their lack of satisfaction with supervisors and company policies.

Principals with a doctorate showed a negatively correlated level of satisfaction with the factor of being able to affect society. Principals with a Masters degree also showed a negative correlation with this factor while principals with a Specialist degree showed a positive correlation. This is in contrast to a widely-held belief by many principals that furthering one’s education will increase the ability to affect change, and thus, society.

*Years as a Principal*

For the factor of years as a principal, there were four significant functions identified. The largest positive correlation for the factor of satisfaction with positional power was for principals who have been a principal for 15 or more years. The largest negative correlation was for principals with 1-3 years. This could be explained by the possible feeling that longer tenure on the job creates more feelings of power as they become more comfortable with being in charge of other employees and have more satisfaction with authority and co-workers. Principals with 1-3 years as a principal showed the most positively correlated satisfaction with recognition for helping others. New principals may feel this due to the new tasks and responsibilities associated with the change in roles from their previous one in the classroom.
For the function of satisfaction with supervisors, the largest negative correlation with satisfaction was shown by principals with 15 or more years as a principal. The largest correlation with satisfaction of this function was by principals with 10-15 years as a principal. It is possible that principals in years 10-15 feel they have enough tenure to have a good working relationship with supervisors and are satisfied with their security and the technical skills of their supervisors, but that as that tenure becomes longer (15 or more years), there may be less satisfaction with the technical skill of those supervisors. For the function of variety of work, principals in years 1-6 showed a negative correlation with satisfaction, but principals with 7 or more years showed a positive correlation. A possible explanation may be that principals that are early in their tenure may be adjusting to the new role and may feel they are doing mandated tasks over and over, decreasing their satisfaction. Principals with 7 or more years as a principal may have learned to better delegate some of those tasks, freeing themselves to have diversity in their work, thus, increasing their satisfaction with variety.

Conclusions

The following conclusions were drawn based upon the findings of this study that were reported in Chapter 4:

1. Of the respondents, there was a fairly equal distribution among the number of years as a principal for those who responded. This is inconsistent with several previous studies that indicated many principals being near the end of their careers. This may indicate that the state of Missouri has already experienced the large turnover in principals due to retirements that other studies have predicted.
2. Males still hold a much higher percentage of positions as high school principals in the state of Missouri.

3. The Minnesota Satisfaction Questionnaire has internal consistent reliability to study this group, high school principals.

4. Compensation was the 2\textsuperscript{nd} lowest ranked dimension among all principals. This feeling is consistent with numerous previous studies on job satisfaction (Barry, 2002; Sablatura, 2002; Stemple, 2004) which found that principals in Texas, Michigan, and Virginia were not satisfied with how well they were compensated.

5. General satisfaction was the highest for principals that had 3 assistant principals, were in schools with 1001-1400 students, and 15 or more years as a principal. This is consistent with an earlier review of literature by Overbay (2003) that indicated that school size can be too large and also too small, and by research by Stemple (2004) and Barry (2002) that indicated that job satisfaction of principals is related to school size.

6. The respondents were most satisfied with the dimensions of social service, achievement, and activity. They were least satisfied with the dimensions of security, compensation, and advancement. In previous studies, security has not been indicated as an area of dissatisfaction, often being rated somewhere in the middle of the 20 dimensions. This could become a larger issue as the additional accountability and mandates along with economic factors threaten job security for principals.
7. Principals felt less satisfaction with the ability to implement new ideas when they had a salary >$100000 and were at schools with >2000 students. Principals felt the most satisfaction with the ability to implement new ideas when they had a salary of $75000-$100000 and were at a school with 1001-1400 students.

8. Principals felt less satisfaction with external working rewards if they had zero or one assistant principals and made less than $75000.

9. Principals in the higher end of a range for several different variables (Salary, Number of Assistant Principals, School Size, and Education Level) showed the most negative correlation with satisfaction in numerous functions. Since this study showed a correlation between school size and those other variables, these negative correlations with satisfaction could indicate that there is an upper limit to the size of school that a principal feels satisfaction with these functions.

10. The response rate for this survey was a relatively low. The timing of this survey during a busy time of the school year in Missouri (May) may have contributed to this low response rate.

Recommendations
On the basis of the findings and conclusions drawn from this study, the following recommendations are suggested:

1. A different instrument should be found or developed to survey high school principals. While the MSQ gives good information regarding general job satisfaction, there are many other areas of job satisfaction that may specifically relate to the job of a high school principal.

2. This study should be replicated periodically to keep pace with the changes in issues that are creating satisfaction or dissatisfaction for high school principals. This would allow for a longitudinal study and also help identify evolving issues related to job satisfaction for high school principals.

3. The issue of job security is something that arose from this study and should be studied more in depth since it has not been indicated as an area of dissatisfaction in previous studies. A qualitative or quantitative study to discover trends in the feelings of high school principals about job security could provide more information on this topic.

4. The ranges for salary on the demographic questionnaire should be expanded to more accurately represent the salaries that high school principals are now receiving, specifically the >$100000 range.

5. While some conclusions about satisfaction and its relation to school size were indicated in this study, additional information and research about optimal school size are needed.
While high school principals in the state of Missouri are generally satisfied, there are specific dimensions related to satisfaction that need further study. This study adds to the limited body of knowledge related to job satisfaction among high school principals. Job security is an area that has not previously been indicated as an area of dissatisfaction when studying high school principals and the evolving issues facing high school principals may be affecting satisfaction with security. Further research is needed on high school principals in Missouri.
References


Job Satisfaction


Job Satisfaction


Missouri Secretary of State. (n.d.). *Code of State Regulations, Title 5; Department of*


Appendix A- Survey Instruments

Demographic Data Sheet sent with MSQ

Demographic Data Sheet

1. What is your age?
   a. Younger than 35
   b. 36-45
   c. 46-55
   d. Older than 55

2. What is your sex?
   a. Male
   b. Female

3. What is your salary range?
   a. Less than $50,000
   b. $50,000-$75,000
   c. $75,000-$100,000
   d. More than $100,000

4. How many assistant principals do you have?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5 or more

5. What is the size of your school?
   a. 200 students or less
   b. 201-500 students
   c. 501-800 students
   d. 801-1000 students
   e. 1001-1400 students
   f. 1400-2000 students
   g. Over 2000 students

6. Did your school make Adequate Yearly Progress (AYP) under No Child Left Behind?
   a. Yes
   b. No

7. What is your education level?
   a. Bachelors
b. Masters
  c. Specialist
  d. Doctorate

8. How many years have you been a principal?
   a. 1-3
   b. 4-6
   c. 7-9
   d. 10-15
   e. 15 or more
minnesota satisfaction questionnaire

The purpose of this questionnaire is to give you a chance to tell how you feel about your present job, what things you are satisfied with and what things you are not satisfied with.

On the basis of your answers and those of people like you, we hope to get a better understanding of the things people like and dislike about their jobs.

On the following pages you will find statements about your present job.

- Read each statement carefully.
- Decide how satisfied you feel about the aspect of your job described by the statement.

Keeping the statement in mind,

- if you feel that your job gives you more than you expected, check the box under "Very Sat." (Very Satisfied),
- if you feel that your job gives you what you expected, check the box under "Sat." (Satisfied),
- if you cannot make up your mind whether or not the job gives you what you expected, check the box under "N" (Neither Satisfied nor Dissatisfied),
- if you feel that your job gives you less than you expected, check the box under "Dissat." (Dissatisfied),
- if you feel that your job gives you much less than you expected, check the box under "Very Dissat." (Very Dissatisfied).

Remember, Keep the statement in mind when deciding how satisfied you feel about that aspect of your job. Do this for all statements. Please answer every item.

Be frank and honest. Give a true picture of your feelings about your present job.
Job Satisfaction

On my present job, this is how I feel about...

<table>
<thead>
<tr>
<th></th>
<th>Very Dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither Satisfied or Dissatisfied</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The chance to be of service to others.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The chance to try out some of my own ideas.</td>
<td></td>
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<td>3. Being able to do the job without feeling it is morally wrong.</td>
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<td>4. The chance to work by myself.</td>
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<td>5. The variety in my work.</td>
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<td>6. The chance to have other workers look to me for direction.</td>
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<td>7. The chance to do the kind of work that I do best.</td>
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<td>8. The social position in the community that goes with the job.</td>
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<td>9. The policies and practices toward employees of this company.</td>
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<td>10. The way my supervisor and I understand each other.</td>
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<td>11. My job security.</td>
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<td>12. The amount of pay for the work I do.</td>
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<td>13. The working conditions (heating, lighting, ventilation, etc.) on this job.</td>
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<td>14. The opportunities for advancement on this job.</td>
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<td>15. The technical &quot;Know-how&quot; of my</td>
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### Job Satisfaction

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<td>16. The spirit of cooperation among my co-workers</td>
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<td>17. The chance to be responsible for planning my work.</td>
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<td>18. The way I am noticed when I do a good job.</td>
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<td>19. Being able to see the results of the work I do.</td>
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<td>20. The chance to be active much of the time.</td>
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<td>21. The chance to be of service to people.</td>
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<td>22. The chance to do new and original things on my own.</td>
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<td>23. Being able to do things that don't go against my religious beliefs.</td>
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<td>24. The chance to work alone on the job.</td>
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<td>25. The chance to do different things from time to time.</td>
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<th>Neither Satisfied or Dissatisfied</th>
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<tr>
<td>26. The chance to tell other workers how to do things.</td>
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<td>27. The chance to do work that is well suited to my abilities.</td>
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<td>28. The chance to be &quot;somebody&quot; in the community,</td>
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<td>29. Company policies and the way in which</td>
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they are administered.

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<td>30. The way my boss handles his/her employees.</td>
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<td>31. The way my job provides for a secure future.</td>
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<td>32. The chance to make as much money as my friends.</td>
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<td>33. The physical surroundings where I work.</td>
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<td>34. The chances of getting ahead on this job.</td>
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<td>35. The competence of my supervisor in making decisions.</td>
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<td>36. The chance to develop close friendships with my co-workers.</td>
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<td>37. The chance to make decisions on my own.</td>
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<td>38. The way I get full credit for the work I do.</td>
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<td>39. Being able to take pride in a job well done.</td>
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<td>40. Being able to do something much of the time.</td>
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<td>41. The chance to help people.</td>
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<td>42. The chance to try something different.</td>
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<td>43. Being able to do things that don't go against my conscience.</td>
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<td>44. The chance to be alone on the job.</td>
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<td>45. The routine in my work.</td>
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### Job Satisfaction

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<tr>
<td>46. The chance to supervise other people.</td>
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<td>47. The chance to make use of my best abilities.</td>
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<td>48. The chance to &quot;rub elbows&quot; with important people.</td>
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<td>49. The way employees are informed about company policies.</td>
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<td>50. The way my boss backs up his/her employees (with top management).</td>
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<td>51. The way my job provides for steady employment.</td>
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<td>52. How my pay compares with that for similar jobs in other companies.</td>
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<td>53. The pleasantness of the working conditions.</td>
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<td>54. The way promotions are given out on this job.</td>
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<td>55. The way my boss delegates work to others.</td>
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<td>56. The friendliness of my co-workers.</td>
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<td>57. The chance to be responsible for the work of others.</td>
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<td>58. The recognition I get for the work I do.</td>
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<td>59. Being able to do something worthwhile.</td>
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<td>60. Being able to stay busy.</td>
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<td>61. The chance to do things for other people.</td>
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<td>62. The chance to develop new and better ways to do the job.</td>
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<td>63. The chance to do things that don't harm other people.</td>
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<td>64. The chance to work independently of others.</td>
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<td>65. The chance to do something different every day.</td>
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<td>66. The chance to tell people what to do.</td>
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<td>67. The chance to do something that makes use of my abilities.</td>
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<td>68. The chance to be important in the eyes of others.</td>
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<td>69. The way company policies are put into practice.</td>
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<td>70. The way my boss takes care of the complaints of his/her employees.</td>
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<td>71. How steady my job is.</td>
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<td>72. My pay and the amount of work I do.</td>
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<td>73. The physical working conditions of the job.</td>
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<td>74. The chances for advancement on this job.</td>
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<td>75. The way my boss provides help on hard problems.</td>
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<td>76.</td>
<td>The way my co-workers are easy to make friends with.</td>
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<td>77.</td>
<td>The freedom to use my own judgment.</td>
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<td>The way they usually tell me when I do my job well.</td>
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<td>79.</td>
<td>The chance to do my best at all times.</td>
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<td>80.</td>
<td>The chance to be &quot;on the go&quot; all the time.</td>
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<td>The chance to be of some small service to other people.</td>
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<td>82.</td>
<td>The chance to try my own methods of doing the job.</td>
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<td>83.</td>
<td>The chance to do the job without feeling I am cheating anyone.</td>
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<td>The chance to do many different things on the job.</td>
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<td>The chance to make use of my abilities and skills.</td>
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<td>The chance to have a definite place in the community.</td>
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<td>89.</td>
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<td>91. The way layoffs and transfers are avoided in my job.</td>
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<td>92. How my pay compares with that of other workers.</td>
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<td>93. The working conditions.</td>
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<td>94. My chances for advancement.</td>
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<td>95. The way my boss trains his/her employees.</td>
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<td>96. The way my co-workers get along with each other.</td>
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<td>97. The responsibility of my job.</td>
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<td>98. The praise I get for doing a good job.</td>
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<td>99. The feeling of accomplishment I get from the job.</td>
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<td>100. Being able to keep busy all the time.</td>
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Appendix B—Correspondence related to use of MSQ and survey

Letter to request use of MSQ on internet

May 4, 2009

Patricia Hanson
Vocational Psychology Research
University of Minnesota
N612 Elliott Hall
75 East River Road
Minneapolis, MN 55455-0344

Dear Ms. Hanson,

I am a graduate student at the University of Missouri currently working on my doctoral degree in education leadership. For my dissertation I am planning a study involving job satisfaction among high school principals in Missouri. This study will attempt to survey 497 high school principals in Missouri. I have proposed and my advisors have approved the use of the Minnesota Satisfaction Questionnaire (long form, 1967) for the purpose of data collection, via the Northwest Missouri State University Office of Institutional Research (only as a collection agency, they will not be using any data).

Enclosed is the application to use the MSQ instrument. The application has been completed by me and Dr. Joyce Piveral, my dissertation chair at MU. I am also sending along a payment of $82.01 for royalties as instructed by you in the enclosed email. The royalties are for the projected return rate of 50% from the internet survey (497 x .5 x $.33 = $82.01). I will then include your permission letter with the survey.

If there is anything else that is required or if there is something I have neglected to consider please write, email, or call me. I have listed my contact information at the end of this letter.

Respectfully,

Robert D. Sigrist
Home 816-671-0086
Work 816-671-4080
Fax 816-671-4484
Email rdsvw9@mizzou.edu
Email rob.sigrist@sjsd.k12.mo.us
First email sent to principals in May, 2009

From: Robert Sigrist (rdsvw9@mizzou.edu)
To:
Subject: HS Principals Survey
Message:
Dear <First name> <Last name>,

I am a high school assistant principal at Central High School in St. Joseph, MO. I am currently completing my dissertation at the University of Missouri and am asking for your help. I am conducting a survey to study job satisfaction among high school principals in the state of Missouri. All data will be collected by a third party and your responses will not be able to be linked to you. All surveys are anonymous and confidential. If you are willing to participate and take 15-20 minutes of your time to complete the survey, please follow this link:

I know this is a busy time of year for all principals, and I am very appreciative of your willingness to assist with this study. If you have any questions or need more information regarding the survey, feel free to contact me at the phone number, address, or email listed below. Once again, thank you for your assistance with this study.

Robert Sigrist
Assistant Principal
Central High School
St. Joseph, MO 64501
816-671-4080
rob.sigrist@jsd.k12.mo.us
rdsvw9@mizzou.edu
Second email sent to principals in May, 2009

From: Robert Sigrist (rdsvw9@mizzou.edu)
To:
Subject: HS Principals Survey
Message:
Dear <First name> <Last name>,

I am a high school assistant principal at Central High School in St. Joseph, MO, and I am completing my dissertation at the University of Missouri. Recently you received an email from me asking you to complete a survey I am using to study job satisfaction among high school principals in the state of Missouri. I know how busy all principals are, so I am sending this as a reminder. Again, all answers will not be identifiable to you and will be confidential and anonymous. If you are willing to take 15-20 minutes of your time to complete the survey, please follow this link:

If you have already completed the survey, I thank you for your help. I know this is a busy time of year for all principals, and I am very appreciative of your willingness to assist with this study. If you have any questions or need more information regarding the survey, feel free to contact me at the phone number, address, or email listed below. Once again, thank you for your assistance with this study.

Robert Sigrist
Assistant Principal
Central High School
St. Joseph, MO 64501
816-671-4080
rob.sigrist@jsd.k12.mo.us
rdsvw9@mizzou.edu
Third and final email sent to principals in June, 2009

From: Robert Sigrist (rdsvw9@mizzou.edu)
To:
Subject: HS Principals Survey
Message:
Dear <First name> <Last name>,

I am a high school assistant principal at Central High School in St. Joseph, MO, and I am completing my dissertation at the University of Missouri. Recently you received an email from me asking you to complete a survey I am using to study job satisfaction among high school principals in the state of Missouri. I know how busy all principals are, so I am sending this as a reminder. Again, all answers will not be identifiable to you and will be confidential and anonymous. If you are willing to take 15-20 minutes of your time to complete the survey, please follow this link:

If you have already completed the survey, I thank you for your help. I know the past few weeks are a busy time of year for all principals, and I am very appreciative of your willingness to assist with this study. If you have not completed the survey, I’m hoping that things have slowed down for you and you might be more able to assist me at this time. If you have any questions or need more information regarding the survey, feel free to contact me at the phone number, address, or email listed below. Once again, thank you for your assistance with this study.

Robert Sigrist
Assistant Principal
Central High School
St. Joseph, MO 64501
816-671-4080
rob.sigrist@sjd.k12.mo.us
rdsvw9@mizzou.edu
Robert Sigrist is originally from Troy, KS. Robert attended Highland Community College after high school and then transferred to Missouri Western State University, graduating with a degree in Natural Science with a Biology emphasis with a teaching certification. He began his teaching career at Cameron, MO. After four years of teaching and coaching in Cameron, MO, he began teaching at Lafayette High School in St. Joseph, MO. During that time, he completed a Masters Degree in Secondary Administration. In 2003, after five years of teaching and coaching at Lafayette, he was selected to be an Assistant Principal at Central High School in St. Joseph, MO where he currently works.

Robert has been published in School and Community, and has been awarded the Golden Apple award at Cameron as well as an Outstanding Administrator award from the Missouri State Teachers Association. He has served on several statewide MSTA committees, chairing the legislative committee. He is a former member of the Kansas Army National Guard and a member of the Troy Kansas 1984 State Championship Basketball Team that was inducted into the Kansas Basketball Coaches’ Hall of Fame. He lives with his wife, Kim, and their children, Alex and Alison, in St. Joseph, MO.