

University of Nevada, Reno

An Examination of Job Satisfaction among Urban High School Teachers

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in Education

By

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Abstract

The workload of public educators has become increasingly complex in recent years. New and veteran teachers are facing a variety of internal and external challenges within the classroom environment. Internal challenges include, but are not limited to students with limited English skills, inclusion of students with special needs in the regular classroom, and increasing class sizes. The external challenges are that school leaders and teachers are facing new scrutiny for accountability regarding student academic achievement and federal mandates. The consequences of both challenges result in teacher turnover; replacement and training are extremely costly, in addition to negatively impacting school climate. The purpose of this study was to explore the job satisfaction of teachers who work in seven urban high schools (A-G). The research is a quantitative study using ten separate multiple analyses of variance (MANOVA) tests. This was done through the use of the Job Satisfaction Survey (JSS) with 9 subscales, in conjunction with an individual Demographic Questionnaire on gender, age group, ethnicity, marital status, highest level of education, national board certification, subject taught, salary, years of experience, and the number of schools at which the individual worked. From the nine subscales of perceived job satisfaction, four measure intrinsic job satisfaction (contingent rewards, coworkers, nature of work, and communication) and the remaining five measure extrinsic job satisfaction (pay, promotion, supervision, fringe benefits, and operating conditions). This study sought to identify the difference among groups established by ten demographic variables as measured by the intrinsic and extrinsic means from the 36 questions of the JSS. The data analyses for this study revealed the following. The findings from the Demographic Questionnaire indicate that the typical high school teacher was white, female, married, over the age of 51, in possession of a master's degree but not, reported of having a salary of \$40,001-\$50,000. In high school, she

taught academic core classes for a period of 6-15 years at 2-3 different schools. From the 449 teachers, respondents scored higher in the intrinsic job satisfaction than extrinsic job satisfaction consistently in all 7 high schools. In addition, on average, teachers scored the lowest subscales in pay and highest in supervision. High school A expressed the highest level of overall job satisfaction high school G expressed the lowest. Quantitative analyses were conducted to address the proposed research questions and identify any patterns or relationships between the dependent and independent variables. The results indicate no significance was found for the null hypothesis with independent variables involving gender, ethnicity, marital status, national board certification, subject taught, and the number of schools taught. Key findings suggest that differences exist with independent variables involving age group, level of education, salary, and years of experience. In all four cases, high school teachers in the younger age category of 21-30, with the lowest level of education obtaining only a bachelor's degree, making a salary of \$30,000-\$40,000, and have been teaching the shortest amount of time from 0-5 years had higher intrinsic and extrinsic job satisfaction than their older, more educated, teachers with more income, and more experienced counterparts. The data also supports the belief that regardless of demographic factors, teachers resulted in higher intrinsic job satisfaction than extrinsic job satisfaction. Another intriguing finding of this study was that teachers who were working in high poverty, minority populated, and high risk schools did not necessarily display lower job satisfaction than teachers working in more affluent and socio-economically advantaged schools.

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“Who dares to teach must never cease to learn” ~John Cotton Dana

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CHAPTER I

Introduction

The workload of public educators has become increasingly complex in recent years (Kohn, 2005). New and veteran teachers are facing a variety of internal and external challenges within the classroom environment. The internal challenges include, but are not limited to students with limited English skills, inclusion of students with special needs in the regular classroom, and increasing class sizes.

Compounding the increased complexity within the school setting, public education is also facing significant external scrutiny by policy leaders as well as the general public. Demands for school accountability continue to increase and there are high expectations for academic achievement of all students (Rammer, 2007). Newspaper and magazine headlines clamor that the students in the United States trail behind their counterparts in other countries; students are not getting a quality education.

The 2001 reauthorization of the Elementary and Secondary Education Act of 1965, commonly known as the No Child Left Behind (NCLB) Act has expanded the federal role in education and increased the external demands on schools. Coming at a time of wide public concern about the state of education, the legislation sets in place requirements that reach into virtually every public school in America. The legislation takes particular aim at improving the educational experience of students who have historically been disadvantaged. NCLB requires that schools meet Adequate Yearly Progress (AYP) to bring all students to a level of academic proficiency by the 2013-14 school year as determined by reported standardized test results at designated grade levels. Schools that do not make AYP are labeled as schools needing improvement. As a consequence, these schools face a series of interventions, theoretically to

improve student achievement. NCLB is a landmark in education reform because it includes consequences for schools deemed to be failing to improve student achievement. The intent is to change the culture of America's schools.

Accountability is particularly complicated in schools located in urban settings. Schools located in sections of many cities lack socioeconomic diversity and have a concentration of students whose families struggle economically. In a study by Ingersoll (2001), teacher turnover was stated to be 50% higher in high-poverty schools than in more affluent schools. Both new and experienced teachers resign from low-performing schools, which are frequently located in economically disadvantaged areas, at much higher rates than they leave high-performing schools, which are frequently located in economically diverse communities (Hanushek, Kain, & Rivkin, 1999). A severe shortage in teachers is particularly common in secondary schools serving students from low-income families (Ingersoll, 2001). As a consequence, urban secondary schools remain understaffed in terms of both quality and quantity of teachers (Clotfelter, Ladd & Vigdor, 2003; Fideler, Foster, & Schwartz, 2000; Guin, 2004).

The job-related demands associated with teaching increasing numbers of students with limited English proficiency, inclusion of students with special needs in the regular classroom, low level of student achievement, and increasing class sizes, coupled with the external accountability demands are playing a significant role in teacher satisfaction. Many teachers are leaving the profession (Darling-Hammond, 1998; Fuller, 2002; Gonzalez & Brown, 2008; NEA, 2003a; NEA, 2003b). In a report for the National Commission on Teaching and America's Future (NCTAF), Ingersoll called teaching a "revolving door profession" (Ingersoll as cited in NEA, 2003b, ¶1). The National Education Association stated that, according to the NCTAF,

schools are losing about the same number of teachers each year as they hire. Turnover of teachers in high-poverty schools is especially prevalent (NEA, 2003b).

In any organization, leaders are concerned about turnover rates and ways to retain employees. This is particularly important in the public education system that is supported by tax revenue (Ware & Kitsanas, 2007). The first year of teaching is challenging and often overly frustrating for many new teachers. Indeed, Worthy (2005) stated that it takes approximately three years for a novice teacher to become accustomed to a classroom setting.

In recent years compelling evidence has emerged that teacher turnover is a significant problem affecting school performance and student achievement (Grissmer & Kirby, 1997; Ingersoll, 2001). Drawing on the Schools and Staffing Survey (SASS) from the National Center on Education Statistics (NCES), the National Commission on Teaching and America's Future (NCTAF) reported in 2003 that approximately one third of America's new teachers leave teaching sometime during their first three years of teaching; almost half leave during the first five years. This percentage increased when discipline problems in the school were high or when teachers were dissatisfied with the school environment (Olson, 2000).

A high turnover rate associated with teachers leaving the school or teaching profession is extremely costly. Trapped in a chronic cycle of recruiting, hiring, and retraining new replacements, public schools drain their districts of precious dollars that could be better spent to improve teaching quality and student achievement. In both small and large districts, Barnes, Crowe and Schaefer (2007) found that the costs of recruiting, hiring, and training replacement teachers were substantial. The occupational fields of secondary education have been particularly vulnerable to losing well-trained professional staff. Academic preparation and training of these

teachers is costly and time-consuming; replacement is difficult (Grissmer & Kirby, 1997; Ingersoll, 2001; Guin, 2004; Barnes et. al, 2007).

School climate is also affected by a high turnover of the teaching staff. In a study based on evidence from staff climate surveys administered to 15 elementary schools and case studies from five of those schools, Guin (2004) reported that schools with a high turnover of the teaching staff faced significant organizational challenges. These schools had difficulty planning and implementing a coherent curriculum as well as sustaining positive working relationships among teachers. Tenured teachers within the school consistently stated that having a constant stream of new colleagues prevented them from establishing any kind of order within their daily activities (Guin, 2004). In addition, most agreed that a high turnover rate at the school made professional development an ineffective tool for improvement. One teacher in particular discussed the need to repeat the same professional development because of the constant ‘churning’ of the teaching staff (Guin, 2004). This indicates that high rates of turnover among teaching staff could have a detrimental impact on the organizational functioning of a school.

People usually stay in their jobs when they like what they do and feel appreciated. An important aspect of any job is a feeling of self-worth. Employees experience higher levels of morale when they perceive that their contributions are valued and appreciated. “Job satisfaction is an affective (that is, emotional) reaction to a job that results from the incumbent’s comparison of actual outcomes with those that are desired (expected, deserved, and so on)” (Cranny, Cain-Smith, & Stone, 1992, p. 1). Gallup Poll research, conducted on 1.5 million employees, revealed that feeling powerful and engaged in one’s work has a direct effect on positive business outcomes (Gallup Poll, 2011).

Statement of Problem

Teachers who are motivated to teach all students can make the difference between a good education and a poor one. Research supports the importance of providing students with the most effective teachers in order to ensure teacher retention and student academic success (Darling-Hammond & Youngs, 2002; Goddard, Hoy & Hoy, 2000). When teachers are satisfied in their work, their psychological well-being is enhanced and they are able to function optimally (Reis, Sheldon, Gable, Roscoe & Ryan, 2000). In a NCES (1997) report, the authors indicated that actual teacher effectiveness ultimately impacted student achievement and was dependent upon teacher workplace satisfaction. Other researchers have confirmed such conclusions (Abel & Sewell, 1999; Caprara, Barbaranelli, Borgogni & Steca, 2003; Coladarci 1992). Wong and Wong (1998) suggested teachers have a direct impact the academic performance of their students. Breaux and Wong (2003) asserted, “The most important factor, bar none, is the teacher. Having a single ineffective teacher can affect student learning for years, and having an ineffective teacher for two years in a row can damage a student’s entire academic career” (p.26). Therefore, benefits of teacher satisfaction for both students and schools points to the importance of studying how teachers feel about work.

It is imperative that the public education system attracts and retains teachers who are ready to go into the classroom and teach. However, there is a developing body of literature that suggests that the teaching profession has become too demanding, too burdensome, and too difficult; teaching positions are less attractive to applicants; it is increasingly difficult to retain existing employees (see Figure 1) (Thompson & Barnes, 2007; Portin, Alejano, Knapp & Marzoff, 2006; Grubb & Flessa, 2006). Because it is critical to maintain a quality teaching staff in schools, the question arises, what factors contribute to teachers being satisfied in their jobs?

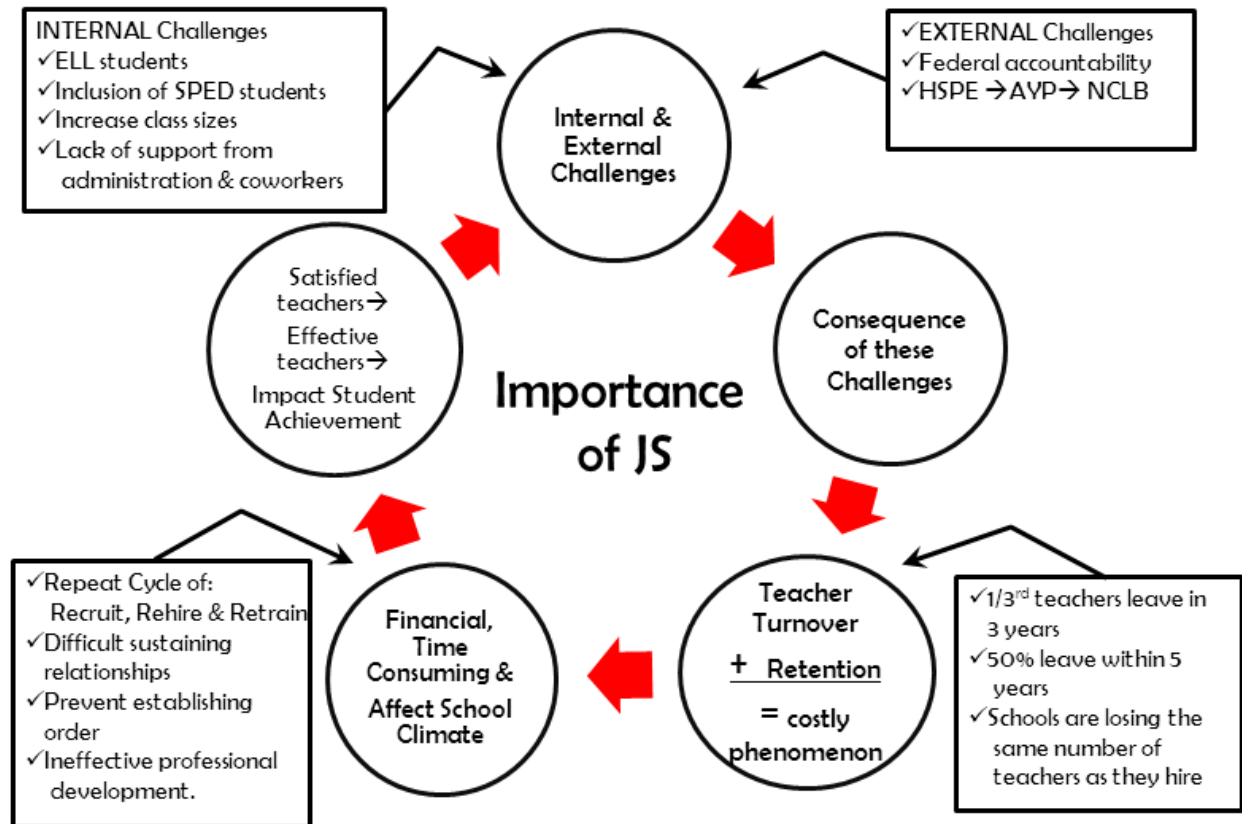


Figure 1. Internal and external challenges of the teaching profession.

There have been many studies about job satisfaction in a variety of settings: business-related professions (Appelbaum, Bailey, Berg & Kalleberg, 2000; DeVaney & Chen, 2003; Ducharme & Martin, 2000; Feather & Rauter, 2004; Kalleberg & Mastekaasa, 2001; Oshagbemi, 2003); nursing (Aiken & Patrician, 2000; Alves, 2005; Boyle, Miller, Gajewski, Hart & Dunton, 2006; Cavanaugh, 1992; Stamps & Piedmonte, 1986); and higher education (Morris, 1972; Seegmiller, 1977; Solmon & Tierney, 1977; Terpstra & Honoree, 2004; Zhang, DeMichele & Connaughton, 2004). However, studies on job satisfaction within the public K-12 education arena have not been as prolific (Bowen, 1980). Most of the research focus has been on satisfaction among principals and administrators within the K-12 environment (Adams, 1999; Border, 2004; Else & Sodoma, 1999; Greska, 2003; Miller, 1985; Neal, 2002; and Sutter, 1994). In particular, the job satisfaction among high school teachers it is not widely known. High

school is a time when students are preparing either for higher education or the workplace. High schools receive the greatest public scrutiny because they are the culmination of the K-12 education system. Therefore, understanding the factors that contribute to job satisfaction of high school teachers may contribute to improving public education.

Purpose Statement

The purpose of this study was to explore the job satisfaction of teachers who work in urban high schools. This was done through the use of the Job Satisfaction Survey (JSS) in conjunction with individual Demographic Questionnaire completed by the high school teachers. The JSS (Spector, 1985) instrument assesses overall satisfaction and nine subscales of job satisfaction: pay, promotion, supervision, fringe benefits, operating conditions, contingent rewards, coworker, nature of work, and communication. Along with the surveys, demographic information was collected. This questionnaire gathered specific information on: gender, age group, ethnicity, marital status, highest level of education, national board certification, subject taught, salary, years of experience, and the number of schools the individual has worked. The JSS instrument and Demographic Questionnaire were used in a high school educational setting. The JSS was originally developed by Dr. Paul E. Spector (1997) for human service and nonprofit organizations to measure the major dimensions of job satisfaction, but has since been applied to the field of education. This study adds to the literature by utilizing the JSS on job satisfaction with urban high school teachers.

Theoretical Framework

A theoretical framework helps define and put into practice a worldview based on observable phenomena (Polit & Beck, 2004). It is the conceptual framework dealing with the theories that relate to variables of the study. "In quantitative studies, one uses theory deductively

and places it toward the beginning of the plan for a study. The objective is to test or verify theory. One thus begins the study advancing a theory, collects data to test it, and reflects on whether the theory was confirmed or disconfirmed by the results in the study. The theory is the framework for the entire study, an organizing model for the research questions or hypotheses for the data collection procedure” (Creswell, 1994, p. 87-88).

While several theoretical frameworks address job satisfaction, the most appropriate framework for this study is Frederick Herzberg’s Two-Factor Motivator-Hygiene theory (P.E. Spector, personal communication, April 18, 2011). Herzberg (1959) characterizes work as an all-encompassing function of human behavior and states that work “fills the greater part of the waking day” (p. 3). Herzberg (1957) sought to answer one fundamental question: “What do workers want from their jobs?” (p. 6). This question is essential to understand the motivation to work, and the factors that contribute to a workers level of job satisfaction and/or dissatisfaction.

The basic tenet of Herzberg’s two-factor theory is that positive influences and motivational interventions are beneficial for attaining and sustaining an effective and satisfied work environment (Herzberg et al., 1957). Herzberg (1966) categorized satisfiers into five areas of job enrichment: (1) achievement; (2) recognition for achievement; (3) the work itself; (4) responsibility; and (5) advancement and growth. Kacel, Miller, and Norris (2005) identified a two-dimensional model of job satisfaction—intrinsic and extrinsic factors. Intrinsic factors (or satisfiers) are motivators that create a positive attitude and contribute to job satisfaction. Motivation is a person’s active participation and commitment to achieving prescribed goals (Halepota, 2005).

In contrast, Kacel et al. (2005) maintained that dissatisfiers at work are associated with the context of the employee’s work or “related to the environment in which workers do their

jobs” (p. 27). Extrinsic hygiene factors (or dissatisfiers) are not motivators by themselves, but must be present to maintain a “certain level of employee motivation” (Usugami & Park, 2005, p. 281). Herzberg (1957) categorized hygiene factors that contribute to job dissatisfaction into the following areas following areas: (1) company policy, (2) supervision, (3) interpersonal relations, (4) working conditions, (5) salary, (6) status, and (7) security (see Figure 2). In short, the absence of hygiene factors contribute to job dissatisfaction (Herzberg et al., 1957), but their presence does not motivate or create satisfaction.

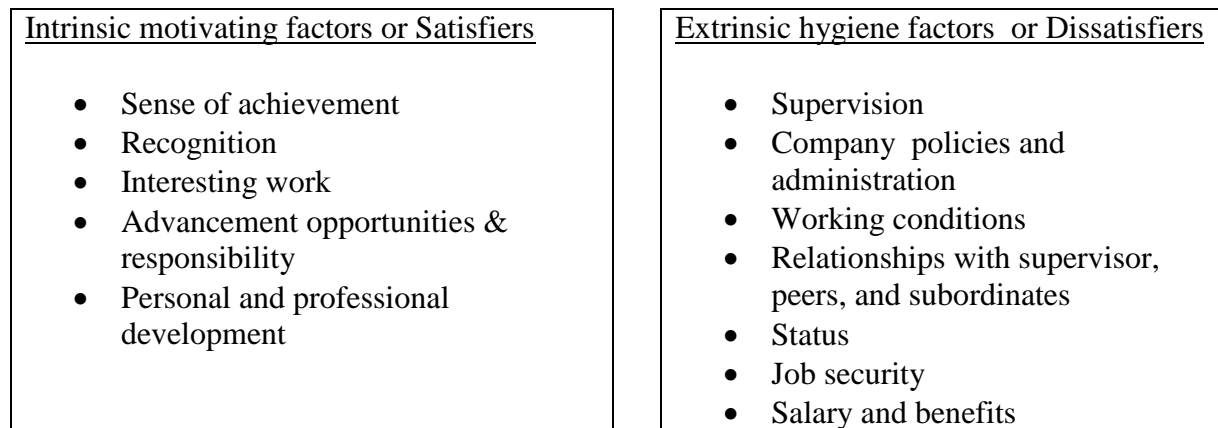


Figure 2. Two-factor theory of job satisfaction (Herzberg, 1959).

The two-factor theory is closely tied to organizational culture and workforce productivity and is therefore relevant to the current study. Analysis of these factors as criterion variables of the study was used to illuminate job satisfaction among high school teachers.

Research Hypotheses

This study was designed to examine the perceived job satisfaction among high school teachers with the nine subscales found in the JSS. The subscales consisted of pay, promotion, supervision, fringe benefits, operating conditions, contingent rewards, coworkers, nature of work, and communication. The participants were full-time, post probationary teachers who were employed at seven high schools in an urban school district located in a western state in the

United States. A secondary purpose of this study was to assess demographic complexity to determine whether demographics, such as gender, age group, ethnicity, marital status, highest level of education, national board certification, subject taught, salary, years of experience, and the number of schools the individual worked had any direct impact on the relationship between faculty job satisfactions. This study examined the perceived job satisfaction of full-time high school teachers. The following null hypotheses were used in the development and design of this study:

1. Null Hypothesis 1.1 – There is no difference between *Gender* groups for the intrinsic and extrinsic means of job satisfaction.
2. Null Hypothesis 1.2 – There is no difference among *Age Group* groups for the intrinsic and extrinsic means of job satisfaction.
3. Null Hypothesis 1.3 – There is no difference between *Ethnicity* groups for the intrinsic and extrinsic means of job satisfaction.
4. Null Hypothesis 1.4 – There is no difference between *Marital Status* groups for the intrinsic and extrinsic means of job satisfaction.
5. Null Hypothesis 1.5 – There is no difference among *Highest Level of Education* groups for the intrinsic and extrinsic means of job satisfaction.
6. Null Hypothesis 1.6 – There is no difference between *National Board Certified* groups for the intrinsic and extrinsic means of job satisfaction.
7. Null Hypothesis 1.7 – There is no difference between *Subject Taught* groups for the intrinsic and extrinsic means of job satisfaction.
8. Null Hypothesis 1.8 – There is no difference among *Salary* groups for the intrinsic and extrinsic means of job satisfaction.

9. Null Hypothesis 1.9 – There is no difference among *Total Years of Teaching Experience* groups for the intrinsic and extrinsic means of job satisfaction.
10. Null Hypothesis 1.10 – There is no difference among *Number of Schools Taught* groups for the intrinsic and extrinsic means of job satisfaction.

The dependent variables in this study were the measure of overall job satisfaction and the nine subscales (pay, promotion, supervision, fringe benefits, contingent rewards, coworkers, nature of work, and communication) of job satisfaction. The independent variables in this study were gender, age group, ethnicity, marital status, highest level of education, national board certification subject taught, salary, years of experience, and the number of schools at which the individual worked.

Assumptions

As with all studies, certain assumptions were made about the research participants, the data collection process, and the survey instrument. The assumptions pertinent to the study were:

- 1) The participants in this study represented the total population of teachers from seven high schools in the school district under study.
- 2) Individuals surveyed were a fair representation of all workers within the seven high schools and had the same general feelings about their jobs and positions as other average working employees.
- 3) The survey participants answered truthfully and accurately, with the understanding that their answers would remain completely anonymous.
- 4) Since the data were self-reported, the ability of high school teachers to accurately remember specific instances and past events was presumed.
- 5) The survey responses represented the attitudes and perceptions of the participants.

- 6) It was assumed that the instrument used is valid and reliable. The JSS gave a reasonable measure of job satisfaction and therefore identified satisfied and dissatisfied categories.
- 7) It was further assumed that written instructions on the survey were clear to the participants.

Limitations of the Study

Several limitations applied to this study. This study occurred over a period of six weeks. Quantitative data were collected with a survey. From the beginning of this study, the identified factors contributing to teachers' satisfaction were limited to the survey instrument in JSS and information obtained in the literature review. The following limitations were imposed on the study.

First, the data collected in the surveys was limited to the specific population of seven high schools in an urban school district located in a western state in the United States. This study was not designed to yield results that could be generalized to elementary, middle, or other high schools, school districts, states, or outside of the United States. Therefore, generalizability of this research, though limited, is only extended throughout the seven high schools of the study.

The second limitation of the self-report instrument includes the chance the respondent did not feel comfortable with the questions, or feared his or her answers may not be anonymous, so the answers given may not be what the respondent actually felt.

Third, there is the possibility of bias in the questions asked and interpretation of the data. Even though it was known, and all efforts were taken to avoid these issues, there is still a possibility, if even a subconscious one. Also, response bias must be considered both in the form of non-respondents (Cooper & Schindler, 2006; Mitchell & Jolley, 2004) and the actual responses received.

The fourth limitation of the study applies only to the nine subscales of job satisfaction as measured by the JSS on a summated rating scale. In addition, gender, age group, ethnicity, marital status, highest level of education, national board certification subject taught, salary, years of experience, and the number of schools the individual has worked were the only demographics evaluated in this study. Teachers' job satisfaction may be impacted by other variables and subscales which were not examined during this study.

The validity and reliability of the survey instrument also contributed to the limitation of this study. Its use in the field of public education is limited, potentially limiting generalization to high school teachers nationwide.

Finally, in the school district under study, a new superintendent was hired during the 2009-2010 school year after the previous superintendent retired, having served for 26 years. The recent changes in leadership may affect job satisfaction among teachers. Additional research and extended study of these results is apt to be recommended for further study.

Delimitations

The following delimitations apply to the study. The conclusions of the study are to be delimited only to post-probationary public school high school teachers actively working full-time in regionally accredited high schools. In the study, the schools selected serve high schools students from grade 9 to grade 12. Charter schools, high schools located in the rural locations of the school district were excluded. Therefore, the results cannot be generalized to other teachers in other school districts or states. The teacher's responses were delimited to the time period during which data are collected. The opinions of high school teachers were assessed only by use of the Job Satisfaction Survey by Paul E. Spector and the Demographic Questionnaire.

Definition of Terms

There are several terms that are used throughout this research that need clarifying.

For the purpose of this study, the following terms are defined to provide a common understanding in their meaning and scope of words throughout this dissertation:

Academic Core Classes – The courses that comprise the bulk of most academic curricula which includes: Mathematics; English/Language Arts; Science; Social Studies and Foreign Languages.

Communication – Sharing of information within the organization either verbally or in writing.

Contingent rewards – Rewards, not necessarily monetary that are given for good performance such as appreciation, sense of respect, recognition, and rewards for good work.

Coworkers – An associate, fellow worker or employee one works within the school district.

Dependent Variables - includes the measure of overall job satisfaction, extrinsic subscale, intrinsic subscale, and the nine subscales (pay, promotion, supervision, fringe benefits, contingent rewards, coworkers, nature of work, and communication) of job satisfaction.

High School – For this study high school is defined as any institution that caters only to students in grades 9th to 12th.

Fringe Benefits – Monetary and non-monetary compensation other than salary, such as vacation, insurance, annuities, etc.

Full-Time – Full-time refers to those faculty members in each of the ten high schools whose formal employment contract states to work at least 185 days per year.

Incentive Pay – A system of compensation which provides set financial rewards for reaching predetermined organizational goals (Brooks, 1980).

Independent Variables – includes gender, age group, ethnicity, marital status, highest level of education, national board certification subject taught, salary, years of experience, and the number of schools the individual has worked in the high school education profession.

Job Dissatisfaction - The degree to which an individual feels negatively about his/her job. It is a negative attitudinal and affective response to one's workplace

Job Satisfaction – This research considers job satisfaction as defined by Spector (1997) as the state of mind of employees with respect to their beliefs, values, and dispositions which constitute the way people feel about their jobs, as well as about different aspects of the job such as pay and promotion. Job satisfaction “represents a cluster of evaluative feelings about the job.” Overall, it is the feeling that employees have about their jobs as well as their feelings toward specific aspects of their job (Spector, 1997).

Job Satisfaction Subscales –The word subscale is also synonymous with dimensions, factors, facets, and variables. Job satisfaction subscales are involved when studying job satisfaction within an institution. Those subscales used in this study include: Pay, Promotion, Supervision, Fringe benefits, Operating procedures (required rules and procedures), Contingent rewards (performance based rewards), Coworkers, Nature of work, and Communication.

Job Satisfaction Survey (JSS) – The JSS was created and tested by Dr. Paul E. Spector (1997) and is designed to be used by multiple raters who can provide feedback on four intrinsic and five extrinsic job satisfaction factors. The survey is a 36-item questionnaire designed to collect data regarding one's level of satisfaction in nine areas as they relate to his/her current job satisfaction.

Likert Scale – Questionnaires which usually use simple questions and ask respondents to note their answers on numbered scales of agreement, usually one to five. This format is commonly referred to as a Likert scale after Rensis Likert, the well-known industrial psychologist and

economist, and it is a survey scale to measure attitudes. The scale measures the extent to which a person might agree or disagree with a phrase or question posed to them. A common scale is 1 to 5, often with 1 equal to "Strongly Disagree" to the posed question, and running through "Disagree", "Not Sure", "Agree", and finally, 5 for "Strongly Agree".

Merit Pay - In this study, the term “merit pay” is used synonymously with “pay for performance,” “merit based pay,” and “incentive pay” to mean compensation paid to teachers who are deemed meritorious through an evaluation process used by a state agency, district, or school site. In most cases merit pay is income added to a base pay and includes stipends paid to National Board Certified Teachers. It is not salary paid in exchange for assuming extra duties or responsibilities and does not encompass career ladder programs.

National Board Certification - “National Board Certification” is conferred on a teacher who meets a level of excellence set by the National Board for Professional Teaching Standards, founded in 1987, as determined by an examination of their practice based on video presentations, a portfolio submission, and proof of content knowledge as evidenced by passing a written test. The organization evaluating and certifying teachers nationally was developed by the Carnegie Task Force on Teaching and was funded by that organization.

Nature of Work – Enjoyment of the actual tasks themselves such as work attributes, variety, challenge, and autonomy. The type of work being done and the sense of worth that are associated with work. This could include one’s feeling about the meaningfulness and personal enjoyment associated with the job.

Non - Academic Core Classes – The courses in this study which includes: English Language Learner; Arts/Humanities; Special Education; Computer Literacy/Technology; and Physical Education/ JROTC/ Health

Operating conditions – Policies, procedures, rules, perceived red tape...

Existing operating policies and procedures that might block one's effort to do a good job, amount of work, level of paperwork, and/or other mandated requirements that make individuals feel like they are overworked or too heavily regulated.

Overall job satisfaction – A state of satisfaction when perceiving the job as a whole rather than of its parts. "The overall evaluative judgment about one's job" (Weiss & Cropanzano, 1996, p. 5).

Pay – Amount and fairness or equity of salary and increases in salary.

Principal – A building-level administrator of school. The principal is viewed as the site-based leader in all aspects of the school (Beck & Murphy, 1993).

Promotion – Opportunities and fairness of advancements in career.

Retention – the act or process of keeping a worker in his/her job or the power or capacity to keep an employee at his/her job (Tack & Patitu, 1992).

Secondary Education – "A period of education planned especially for young people ages approximately 12 to 17 in which the emphasis tends to shift from mastery of basic tools of learning, expressions, and understanding to the use and extension of the tools for exploring areas of thought and living, and in acquiring information, concepts, intellectual skills, attitudes, social, physical, and intellectual ideals and habits, understandings, and appreciations, often differentiated in varying degrees according to needs and interests of pupils; may be either terminal or preparatory." (Good, Biddle, & Brophy, 1983).

Supervision – Actions of an individual's immediate supervisor in dealing with fairness and competence at managerial tasks.

Teacher - Any person who is employed full-time by a high school and who has the responsibility of instructing students, either within a self-contained classroom, in specific subject matter, or special education instruction Refers to certified personnel assigned to a group or groups of students for the majority of the school day for the purpose of instructing students (Lanier, 1997).

Working conditions – Extrinsic factors that modify or restrict the nature of work; environment or context within which an individual works (Herzberg, 1966). In Herzberg's motivational theory, working conditions are referred to as dissatisfiers (Herzberg, 1966).

Organization of the Remainder of the Study

Job satisfaction is a key determining factor related to one's desire to remain in his/her current position or seek alternative source of employment. This study was designed to examine high school teacher satisfaction regarding their demographic profiles and the nine subscales in the JSS, developed by Paul Spector. This document is comprised of five sections that include an introduction, review of literature, methodology, findings, and recommendation and conclusions.

Chapter I provides an introduction to the problem, statement of the problem, purpose statement, theoretical framework, the research hypothesis, assumptions, limitation and delimitation of the study, and finally definition of terms.

Chapter II includes a review of the historical literature and research on JSS factors as it pertains to the job satisfaction of high school teachers. The literature reviewed the following: Definitions of job satisfaction; purpose of studying job satisfaction in relation to retention and turnover; job satisfaction theories in general and in the field of education. Chapter II also extends job satisfaction in relation to the nine subscales of pay, promotion, supervision, fringe benefits, operating conditions, contingent rewards, coworkers, nature of work and performance,

communication, gender, age, race and ethnicity, marital status, educational level and national boards certification. Lastly, Chapter II covers impacts of job satisfaction and impacts of job dissatisfaction.

Chapter III describes the research design. It discusses the design of the study which includes the population, instrument design, independent and dependent variables, how the JSS was scored, reliability, validity, data collection procedures, and discussed how the data were analyzed.

Chapter IV introduces the results from the analysis of the study. MANOVA was used to determine whether differences existed among the demographic variables and the JSS instrument subscales. The survey was administered to 449 high school teachers in seven high schools in an urban school district within a six week period. Quantitative analyses were conducted to address the proposed research questions and identify any patterns or relationships between the dependent and independent variables.

Chapter V provides further interpretation of the results, expands upon the theories of job satisfaction that were studied in an effort to provide a further understanding of demographic facts and their possible influence on job satisfaction among high school teachers, discusses implications for social change, recommendations for future study, and conclusions.

CHAPTER II

LITERATURE REVIEW

Introduction

The purpose of this research was to gain insight about teachers who work in urban high schools relative to their level of job satisfaction. This was done through the use of the JSS in conjunction with individual Demographic Questionnaire completed by the high school teachers in the study.

This literature review is divided into nine sections and begins with a broad overview of job satisfaction as it pertains to employment retention and turnover. The literature review then examines the breakdown various definitions of job satisfaction in the literature, followed by job satisfaction theories, the nine subscales of JSS, and demographic factors. This chapter further explores the impacts of job satisfaction and impact of dissatisfaction.

Job Satisfaction

One of the most frequently studied constructs in social science is job satisfaction (Dormann & Zapf, 2001; Spector, 1997). Job satisfaction includes the attitudinal values and variables that impact the feelings a person holds regarding satisfaction towards his or her job, essentially, how much people likes their jobs (Spector, 1997). The perceived importance of job satisfaction to the success of organizations has led to it becoming the most widely studied variable in organizational behavior research (Spector, 1997).

Job satisfaction remains of interest to employers because of the belief that satisfaction is linked to employee productivity output (Gruneberg, 1976). Indeed, researchers including Etzioni (1975), Likert (1961), and McGregor (1960) have implied that satisfied workers are productive workers. Gruneberg (1979) claimed that job satisfaction is of interest because of “the belief that

increasing job satisfaction will increase productivity and hence the profitability of organizations” (p. 1).

Although appreciated for its importance, job satisfaction is actually a difficult concept to define and quantify. It has been studied since the early part of the twentieth century and, through the years, the term and its implications have been defined and redefined. “Job satisfaction is one of those terms for which we cannot assign a single construct.” (Asgbaugh, 1982, p. 195).

Job Satisfaction has been defined as affective state involving feelings about one’s work (Smith, Kendal, & Huilin, 1969). Motowidlo (1996) defined job satisfaction as “judgments about the favorability of the work environment” (p. 176), while Brief (1998) defined it as “an internal state that is expressed by affectively and/or cognitively evaluating an experienced job with some degree of favor or disfavor” (p. 86). In this view, it is not the job or person individually that determines satisfaction, but the interaction between them.

Although the definitions vary, there is concurrence that job satisfaction is a job-related emotional reaction (Green, 2000). One of the forefathers in the study of job satisfaction was Hoppock (1935). He defined job satisfaction as “any combination of psychological, physiological and environmental circumstances that causes a person to truthfully say, ‘I am satisfied with my job’” (p. 47). Hoppock also found that employees were more likely to be satisfied when they worked under a supervisor who was both understanding and helpful.

Herzberg, et al (1959) defined job satisfaction as a multidimensional attitude wherein an employee can be satisfied with: specific job activities; work place conditions under which the job is performed; or the salary, security or social prestige associated with the job. Vroom (1960) defined job satisfaction as “affective orientations on the parts of individuals towards work roles which they are presently occupying” (p. 99). Similarly, Smith (1973) defined job satisfaction as

“the favorable viewpoint or a measure of the adequacy of the rewards given by employers for the completion of a task” (p. 40). Locke (1976) defined job satisfaction as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (p. 1300). Within institutional, industrial, and social psychology research the concept of job satisfaction is a central research theme (Henne & Locke, 1985) and is viewed as a goal of organizations (Locke, 1976). Muchinsky (1987) stated that job satisfaction is “an effective response of an individual to the job; it results when on-the-job experiences relate to the individual’s values and needs” (p. 51). Berry (1997) defined job satisfaction as “an individual’s reaction to the job experience” (p. 268).

Later work by Locke and Latham (1990) simplified the definition of job satisfaction as the favorableness or unfavorableness with which employees view their work. A short time later, Balzar et al. (1997) defined job satisfaction as feelings that employees have regarding their work environment and their expectations towards work. Thus, job satisfaction can be recognized as what one wants or values from a job (Brief & Weiss, 2002). These authors, as well as others, suggest that in any job, the way in which an employee views his or her work influences the amount of satisfaction (morale) he or she receives from the job (Heyle, 2007; Spector, 1997).

Spector (1997) defined “job satisfaction is simply how people feel about their jobs and different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs” (p. 2). Job satisfaction can be considered as a global attitude of various aspects of work. Spector pointed out that it is an attitudinal variable.

The study of job satisfaction began in the early 1900’s with studies initially being done by psychologists with industry workers. Known as one of the first researchers to study job satisfaction, Hoppock (1935) defined job satisfaction as “any combination of physical or

psychological factors and/or environmental circumstances that may cause a person to be satisfied with his or her job.” (p. 47). Hoppock added to his definition:

A person may be satisfied, dissatisfied, indifferent, or uncertain. He may be satisfied with some aspects of his job and dissatisfied with others; he may combine such specific satisfactions and dissatisfactions into a composite satisfaction with the job as a whole. Such satisfaction may vary day to day, and it may be rationalized, it is not identical with interest. The mechanics of satisfaction may eventually be explained by physiological chemistry, but external stimuli in the job situation will probably help to determine the results. Complete satisfaction may be both impossible and undesirable. (p. 47).

Hoppock's *Job Satisfaction* (1935) was the first publication on job satisfaction and surveying methods. This work led the path for additional research conducted by such scholars as Maslow (1954); Herzberg (1959); Adams (1963); Vroom (1964); Sergiovanni (1967); Smith, Kendall & Huilin (1969); Locke (1969); Lortie (1975); Hackman and Oldman (1976); Bullock (1984); and Spector (1997). These theorists argued that job satisfaction consists of specific job factors and the employee's perception of these factors.

Following Hoppock's work, Abraham Maslow is perhaps one of the most well-known theorists of human behavior and motivation. Maslow believed that human nature is such that basic needs can be seen in a hierarchy. According to Maslow (1954), when an individual's more basic needs are met, he or she can concentrate on higher order needs. People focus on satisfying the lowest unmet needs in the hierarchy and then look to satisfy the next level. The hierarchy levels are: physiological needs (i.e. food, water, air), security needs (i.e. protection, shelter), social/belonging needs (satisfaction, interpersonal relationships), esteem needs (i.e. attention, glory, recognition), and self-actualization (reaching an individual's full potential). When applied

to the workplace, this theory suggests that employees will always strive more from their jobs. Maslow (1943) indicated, “The average member of our society is most often partially satisfied and partially unsatisfied in all of his wants” (p. 395). Individuals can move on to the next level only when the most basic need is satisfied. Maslow (1954) identified job satisfaction as a hierarchy of needs. There are five basic needs that are depicted in Figure 3.

<p>Physiological Needs:</p> <p>The desire for basic necessities of life such as food, water, oxygen, and freedom from fear.</p>	<p>Security Need:</p> <p>The desire for security, stability, protection against threats and unsafe work conditions</p>	<p>Affiliation Needs:</p> <p>The desire for belongingness, to be loved, intimacy, and affection provided by friends, family, and lover. Namely a place within the individual’s group or family.</p>	<p>Esteem Needs:</p> <p>The desire for self-respect, respect of others, attention, status, recognition, achievement, and confidence. Satisfaction of the esteem need leads to self-work, self confidence, and strength.</p>	<p>Self Actualization:</p> <p>The sense that one is fulfilling one’s full potential; self development and the pinnacles of one’s calling. In reality, self-actualization needs are the most difficult to fulfill and can never be fully realized.</p>
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(Maslow, 1954).

Figure 3. Maslow’s Hierarchy of Needs arranged in an ascending hierarchical order

Applied to the concept of job satisfaction, when the basic needs, such as, pay and job security, are secured, attention can be given to such issues as personal growth and development (DeMato, 2001). Lower order needs must be fulfilled before higher order needs can be met: physiological (refers to the fundamental biological drives), safety (refers to the security from physical and psychological harm), social (refers to friend and acceptance by others), esteem (refers to self-respect and approval by others), and self-actualization (refers to self-fulfillment) (Stamps & Piedmonte, 1986; Gruneberg, 1976). Skemp-Arlt and Toupenca (2007) contended

that Maslow's (1943) hierarchy of needs implies that all humans share common needs; Yoke (2006) added that the significance and timing of those needs may vary by individual. All humans have basic needs that drive behaviors, and some personal needs are satisfied through the attainment or achievement of occupational goals.

Frederick Herzberg (1959), psychologist and researcher, argued that higher job satisfaction led to higher productivity, decreased absenteeism, and better working relations. He found that positive feelings about work, a sense of personal worth, and a sense of personal fulfillment were related to achievement and responsibility. Herzberg's motivation utilized Maslow's (1954) Hierarchy of Need to more fully develop his concept. In the late 1950s, Herzberg and his associates conducted a study of the job attitudes among 200 engineers and accountants in the Pittsburg, Pennsylvania area. They interviewed individual employees and asked them to describe *sequences of events* that happened on the job where they felt exceptionally good or bad about their occupation. From this research, *thought units* were identified. A thought unit was defined as "a statement about a single event or condition that lead to a feeling, a single characterization of a feeling, or a description of a single effect" (Herzberg, Mausner, & Snyderman, 1959, p. 38). Herzberg et al (1959) concluded that there were two different sets of factors that affected positive or negative job attitude. Furthermore, job dissatisfaction and job satisfaction arose from these two separate sets of factors. Herzberg maintained that these are two independent sets of needs. Based on the research findings, the theory was termed the Herzberg's Motivator and Hygiene Factor Theory, also known as the Herzberg Dual Factor Theory (Herzberg, 1959; Herzberg et al., 1993; Herzberg et al., 1959). Based on his theory, Herzberg gave a new perspective on job attitudes. The previous perspective was thought to be that the opposite of job satisfaction resulted in job dissatisfaction and the

opposite of job dissatisfaction was job satisfaction. In other words, removing the causes that made workers feel dissatisfied would make them feel satisfied and removing the causes that help workers feel satisfied would result in making them feel dissatisfied. Herzberg's motivation-hygiene theory suggested that this traditional belief is not true. In his theory, Herzberg explained that the opposite of satisfaction is not dissatisfaction but having no satisfaction (being neutral to either satisfaction or dissatisfaction), and the opposite of dissatisfaction is not satisfaction, but no dissatisfaction. Herzberg's theory provides an explanation about the attitudes people have toward their jobs and forces employers to consider whether or not job satisfaction comprises employees' seeking to achieve psychological growth, seeking to achieve freedom from physical and psychological discomfort, or both. It also allows employers to consider how they might help their employees meet these separate but equal need systems in providing a satisfying work environment (Herzberg, 1976).

Herzberg et. al. (1962) identified two categories of motivational forces that are mutually exclusive or individually independent and affect behavior in different ways in the context of workplace motivation. The theory postulated that job satisfaction is a function of two types of conditions: (a) hygiene factors (dissatisfiers) that lead to conditions of dissatisfaction; and (b) motivators (satisfiers) that lead to conditions of satisfaction. Herzberg's theory hypothesized that factors in the workplace causing positive attitudes towards one's job were different than the factors that generated negative attitudes. He identified 15 factors related to either job satisfaction or job dissatisfaction (see Figure 4). Six factors were found to be strong determinates of job satisfaction. These factors tended to be intrinsic in nature and were labeled as motivators. The remaining nine factors were associated with job dissatisfaction. These factors were extrinsic in nature and were labeled as hygiene factors.

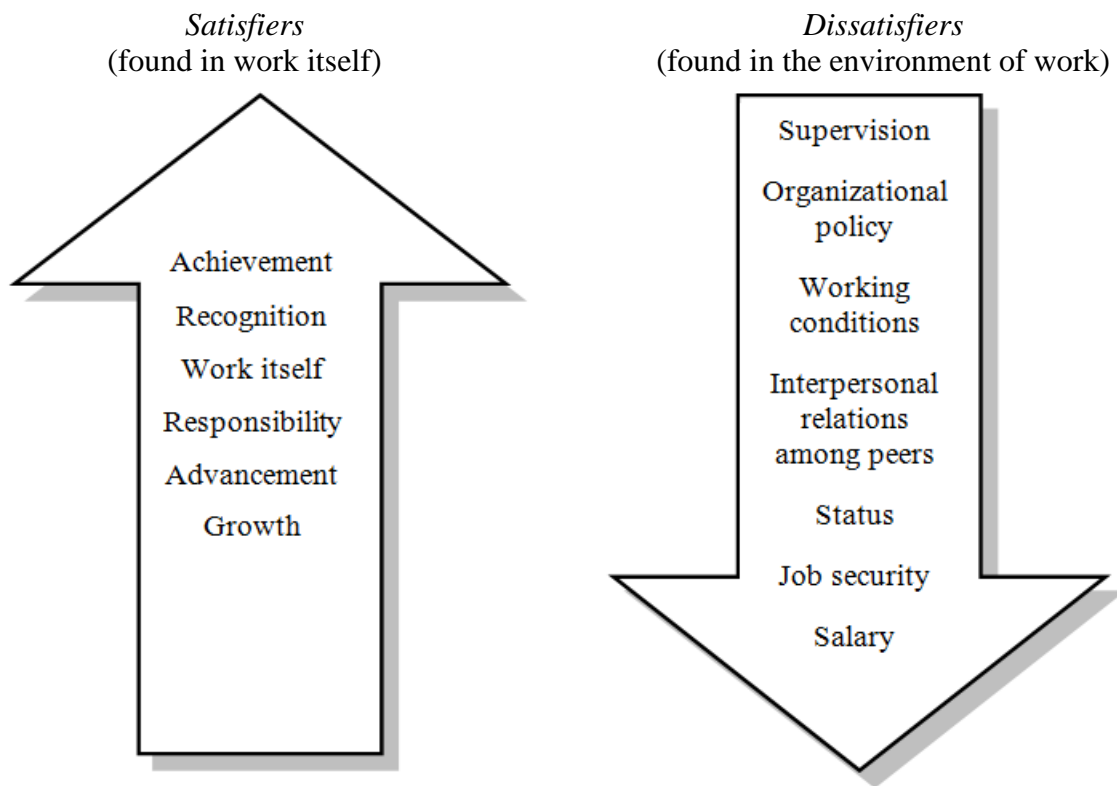


Figure 4. Factors of Herzberg's two sub-categories.

Herzberg et al (1959) found that, indeed, there are two clusters of factors involved in motivation and job satisfaction. Assumptions of job satisfaction and job dissatisfaction are not two extremes of a continuum, but are caused by different underlying job factors and cannot substitute for each other for practical purposes. Motivator factors are deemed to be effective in motivating people to better perform and increase job satisfaction, and are related to job content. "Satisfiers describe a person's relationship to the context or environment in which she performs the job" (Gawel, 1997, p. 2). Herzberg et al (1959) identified five factors in particular that were strong determiners of job satisfaction: achievements, recognition, work itself, responsibility, and advancement – all are related to the job content and the rewards of work performance. Other factors such as supervision, company policy, working conditions, interpersonal relations, status, job security, and salary are hygiene factors. According to the theory (Herzberg, 1959), these

factors are related to the work environment and must be addressed first before an individual can address motivator factors. When the condition of hygiene factors deteriorates to a level where employees perceive it to be unacceptable, it causes dissatisfaction. But improving the condition of hygiene factors to an optimal level does not increase job satisfaction. It is primarily the motivation factors that improve employee job satisfaction (Herzberg, 1959, 1968). Overall, Herzberg et al. (1959) concluded that positive events were related to intrinsic aspects of the job and negative events with the extrinsic aspects. Motivators (satisfiers) were associated with long-term positive effects in job performance while the hygiene factors (dissatisfiers) consistently produced only short-term changes in job attitudes and performance.

The work conditions and personalities of workers have an effect on job satisfaction. Expectations, feelings of equity and different needs may contribute to the feeling of happiness in an employee. Herzberg (1968) developed the two-factor theory in an effort to distinguish the subscales of work life that are truly satisfying or dissatisfying. He found that when people are satisfied, they attribute their satisfaction the work itself; when people are dissatisfied with their jobs, they are concerned about the environment in which they work.

Although Herzberg's theory was initially applied to researching motivation in the workplace, it has also been applied to consumer satisfaction (Maddox, 1981) and guest satisfaction (Mullins, 2001). It is claimed that the concept of satisfaction is common to both the workplace and the consumer satisfaction contexts since both are dealing with humans (Czeipel, Rosenberg & Akerele, 1974; Robinson, 1978), in addition to being two dominant factors that contribute to an individual's life satisfaction (Andrews & Withey, 1974; Maddox, 1981). The duality theory of motivators and hygiene factors has also extended job satisfaction in academia (Smerek & Peterson, 2006; Ssesanga & Garrett, 2005).

In addition to Maslow's hierarchy of need and Herzberg's two-factor theory, Adams (1963) proposed the *Equity Theory* that is based on the comparison individuals make with their peers and the desire to receive what they believe they justly deserve for the efforts expended. The theory maintains the central notion "That we have a concept of what is just reward for our efforts" (Gruneberg, 1979, p. 20). Employees weigh their perceived input, efforts, and contributions to the position against the perceived outcomes and rewards. "Employees agree to make specific contributions to an organization for which they expect benefits in return that are proportional to their contributions" (Geurts, Schaufeli & Rutte, 1999, p. 254). If employees perceive their rewards as comparable to others, then they feel a sense of satisfaction, however, if others are perceived as receiving more or less, then they are dissatisfied (DeMato, 2001).

Inequity results when employees believe they are undervalued for their inputs and outcomes relative to other employees who form a referent group. Adams (1963) specified that inputs involve the degree of effort invested in work but also one's education and previous work experience outcomes, including "pay, rewards intrinsic to the job, seniority benefits, fringe benefits, job status and status symbols" (p. 423). The referent group might be one or more employees in the same position in the same company, employees at a different company, or employees in the closest comparison position. Equity theory suggests that an employee will increase or decrease inputs or outputs in order to match those of the referent group and thereby decrease the inequity.

The measure of satisfaction in Vroom's (1964) *Expectancy Theory* described job satisfaction as being a result of the interaction between situations experienced and an individual personality. Specifically, the theory is built on three core beliefs: the belief that efforts result in performance; the belief that performance is rewarded; and finally that the rewards are valued by

the recipient (Berry, 1997). Most individuals presume strong efforts lead to good performance and good performance leads to rewards. Satisfaction is determined if the actual rewards match with expected rewards. The Expectancy Theory maintains that performance must be instrumental in bringing rewards, and that motivations come from the interplay of these three beliefs.

Ivancevich, Donnelly, Gibson, Collins and Nielson (1991) stated that, "an important contribution of the Expectancy Theory is that it explains how the goals of individuals influence their *effort* and that the behavior individuals select depends on their assessment of whether it will successfully lead to the goal" (p. 378). Furthermore, performance is also influenced by role perception or what people believe is expected of them on the job. This theory assumes that organizations need to clarify what people's expectancies are so that their effort can lead to performance through positive rewards.

Job Satisfaction in the Field of Education

Considerable research has been conducted applying Herzberg's Motivation-Hygiene theory in the field of education. One of the early researchers was Thomas Sergiovanni. The purpose of Sergiovanni's study (1967) was to test Herzberg's theory with educators. Sergiovanni found that achievement, recognition, and responsibility contributed predominantly to job satisfaction of teachers, whereas, inadequate style of supervision, interpersonal relations with students, and poor interpersonal relations with colleagues and parents, rigid and inflexible school policies and administrative practices were factors predominantly related to teachers job dissatisfaction. It must be noted, however, that Sergiovanni's study deviated from Herzberg's theory in at least two ways. First, the work itself accounted for both satisfaction and dissatisfaction among teachers. Second, advancement, an important motivator in Herzberg's study of accountants and engineers, was missing from Sergiovanni's study of teachers.

According to Sergiovanni, teaching as an occupation offers little opportunity for advancement as

it is currently structured. An illustration of Herzberg's hypothesis in Sergiovanni work is presented in Figure 5.

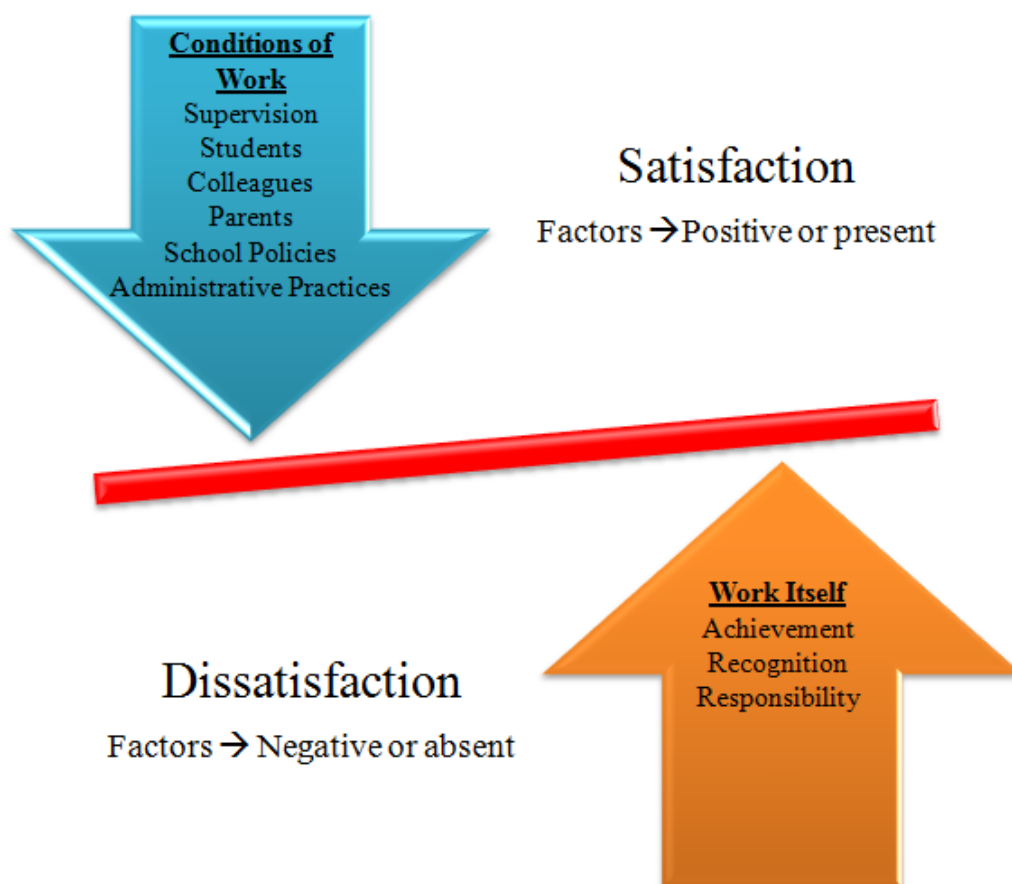


Figure 5. Herzberg's hypothesis: satisfiers and dissatisfiers.

People who occupy different professions consider motivators and hygienes differently. There have been numerous studies that are based on Herzberg's dual-factor theory; Table 1 provides a comparison of the motivators and hygiene factors for three different job categories: (1) accountants and engineers; (2) teachers; and (3) administrators. Job satisfaction (motivators) and dissatisfaction factors (hygiene) for accountants and engineers as found in the early studies by Herzberg and associates are identified under "A" of Table 1. Contributions to later studies for teachers (Sergiovanni, 1967) are found under "B" in Table 1. Finally, Gene Schmidt (1976) applied Frederick Herzberg's Motivation-Hygiene Theory to public school administrators; their

results are under “C” of Table 1. As is evident, each group identified different motivators and hygiene factors.

Table 1

Motivator and hygiene factors in relation to job satisfaction among accountants, engineers, & teachers

<i>Motivators</i>	<i>Hygienes</i>
A. Accountants and Engineers	A. Accountants and Engineers
1. Achievements	1. Company Policy and Administration
2. Recognition	2. Technical Supervision
3. Work Itself	3. Salary
4. Responsibility	4. Interpersonal Relations With Subordinates
5. Advancement	5. Working Conditions
6. Salary	
B. Teachers	B. Teachers
1. Achievement	1. Interpersonal Relations With Students
2. Recognition	2. Interpersonal Relations With Peers
3. Work Itself	3. Company Policy and Administration
4. Responsibility	4. Technical Supervision
C. Administrators	C. Administrators
1. Achievement	1. Company Policy and Administration
2. Recognition	2. Interpersonal Relations With Supervisors
3. Advancement	3. Interpersonal Relations With Peers
4. Interpersonal Relations Subordinates	4. Interpersonal Relations With Subordinates

(Herzberg et al., 1959; Sergiovanni, 1967; and Schmidt, 1976).

Dan Lortie’s *School Teacher: A Sociological Study* (1975) summarized a decade of research by the author on the profession of teaching. Extending Herzberg’s two factor theory, Lortie (1975) proposed a third type of reward that promotes job satisfaction. According to Lortie (1975), rewards are classified into three types: extrinsic rewards, psychic or intrinsic rewards, and ancillary rewards. Extrinsic rewards involve what are usually considered *earnings* attached to a role, for instance, salary, level of prestige, and power over others. These earnings are extrinsic in the sense that they exist independently of the individual who occupies the role and

they have an *objective* quality. In contrast to extrinsic rewards, psychic or intrinsic rewards consist entirely of subjective valuations made in the course of work engagement. Unlike extrinsic rewards, the psychic rewards of teachers fluctuate. They are based upon an individual's enjoyment of the work and "the subjectivity means that they can vary from person to person" (Lortie, 1975, p. 101). Ancillary rewards (e.g., work schedule, convenient hours that fit the demands of family life, summer off) are simultaneously objective and subjective characteristics of the work that can be perceived as rewards by some and not by others. For example, married women might consider the work schedules of teaching to be rewarding while men might not. Ancillary rewards tend to be stable through time, and to be assumed rather than specified in contracts; for example, people expect teaching to be cleaner than factory work (Lortie, 1975).

Lortie (1975) found that of the more than 5,800 teachers surveyed, over 76.5% said that the primary rewards of teaching were what Lortie called the psychic or intrinsic rewards. By psychic rewards, teachers meant such things as "knowing that I have reached students and they have learned," and a "chance to associate with other teachers" (p.45). Only 11.9% chose extrinsic rewards like salary and status, and only 11.7% choose ancillary rewards (Lortie, 1975).

Although over 3,350 articles had been written about job satisfaction, by 1972, very few related to human services professionals (Locke, 1976). Prior to the late 1970s, most of the research on job satisfaction focused on industrial employees (Spector, 1985). Paul Spector is a human services researcher who has been involved with the research of job satisfaction since 1985. Spector (1997) defined job satisfaction as "how people feel about their jobs and different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs" (p. 2). Spector designed the JSS to measure the major dimensions of job satisfaction in human service, public, and nonprofit organizations. Through an analysis of the literature of

job dimensions, nine subscales were created to represent the satisfaction domain with five extrinsic (pay, promotion, supervision, fringe benefits, and operating conditions) and four intrinsic (contingent rewards, coworkers, nature of work, and communication) subscales, as well as total overall satisfaction. Each subscale consists of four items; the scale used includes six choices per item ranging from *strongly disagree* to *strongly agree*. Table 2 lists the nine specific subscales.

Table 2

Description of the Subscales from the JSS

	Subscales	Description
EXTRINSIC SUBSCALES	Pay	Satisfaction with pay and pay raises
	Promotion	Satisfaction with promotion opportunities
	Supervision	Satisfaction with the person's immediate supervisor
	Fringe benefits	Satisfaction with monetary and non-monetary fringe benefits
	Operating conditions	Satisfaction with rules and procedures
INTRINSIC SUBSCALES	Contingent rewards	Satisfaction with rewards (non-monetary) given for good performance
	Coworkers	Satisfaction with people you work with
	Nature of work	Satisfaction with task themselves and the type of work done
	Communication	Satisfaction with communication within the organization

(Spector, 1997, p. 8).

Spector (1985) found that job satisfaction has been the most widely studied indicator of how an employee's personal life affects their work environment as "a cluster of evaluative feelings about the job" (p.695). In the survey, he included the environmental and personal antecedents of job satisfaction (Spector, 1997) because they are caused by many reasons and can cause many benefits. "Job satisfaction is to some extent a reflection of good treatment. It also can be considered an indicator of emotional well-being or psychological health" (Spector, 1997, p. 2). The negative impacts of stress can signal problems (Spector, 2005) and can lead to job dissatisfaction (Kim & Garman, 2004; Grzywacz & Mark, 2000). Ultimately, job dissatisfaction can make an employee frustrated and leave the organization.

Pay

Pay is defined as a method of financial compensation for doing routine, scheduled, or interval tasks as prescribed by a job (Spector, 1997). Srivastara & Salepante (1977), in their review of 1,073 correlational studies of job satisfaction, concluded that the amount of pay one receives is related to one's satisfaction with the job. Robinson, Athanasiou and Head (1969) made the statement that higher wages are associated with higher level job positions, higher productivity, and greater experience with work. In addition to job satisfaction, pay satisfaction influences overall motivation and performance, absenteeism, and turnover, and it may be related to pay-related grievances and lawsuits (Cable & Judge, 1994; Gerhart & Milkovich, 1990; Huselid, 1995; Milkovich & Newman, 2002).

Historically, school officials have struggled to find ways to attract, sustain, and encourage quality educators (National Commission on Excellence in Education, 1983). The 1983 national report, *A Nation at Risk* stated that:

Salaries for the teaching profession should be increased and should be professionally competitive, market sensitive, and performance based. Salary, promotion, tenure, and retention decisions should be tied to an effective evaluation system that includes peer review so that superior teaching can be rewarded, average teachers encouraged to do better, and poor teachers either improved or terminated (p. 30).

According to Goodlad (1984) teachers select the education profession for many reasons: the desire to help others, the desire to work with children, job security, and the sense of accomplishment received from the work itself. Using a survey instrument with 1,300 teachers, Goodlad concluded that the majority had entered teaching due to the intrinsic nature of the work itself. Indeed, Goodlad found that money was not the primary reason teachers enter the teaching profession; at the same time, pay was the second ranked most common reason for teachers to leave the profession. Han (1994) argued that teacher compensation is linked to the perception that increases in pay would encourage more students of high ability to go into the teaching career.

In regards to income, teachers often make less than their professional counterparts. Teachers in 1998 aged 22-28 earned about \$8,000 less per year than other college graduates of the same age group. Teachers with a master's degree on average earned \$12,425 more than individuals with only a bachelor's degree within the education field. Outside the teaching profession, individuals with a master's degree earned an average \$24,648 more per year than those with a bachelor's degree. This resulted in a \$12,223 difference each year between individuals working in education and those in other fields and indicates a much lower earning potential. Furthermore, teachers' age 44 to 50 who obtained master's degrees earned \$32,511 less than individuals of similar age group in other occupations (Education Week, 2000).

However, research has also indicated that very few teachers enter the profession because of external rewards such as salary benefits or prestige (Perrie & Baker, 1997). In the field of education, educators are expected to put forward their best efforts, not for the possibility of greater pay, but because of the importance of educating students (Rebore, 2001). The trend is to place more emphasis on intrinsic motivation toward job satisfaction. Indeed, studies have shown that teachers are motivated more by intrinsic (internal) than by extrinsic (external) rewards (Ellis, 1984; Mackenzie, 2007). However, under some circumstances, money can increase intrinsic motivation among males. In a study by Johnston, McKeown and McEwen (1999), male teachers attached significantly greater importance to extrinsic factors (e.g., financial reward, the status perceived to be associated with their preferred occupation, and peer reactions) than female teachers. In turn, males reported being significantly less concerned than females with intrinsic factors, such as potential for job satisfaction and the prospect of the job being mentally stimulating. These gender-related differentials mirror the findings of research reported by Ethington (1988) that males are sensitive to salaries and career prospects when choosing a career while females are more attracted to what they see as intrinsic rewards like job satisfaction. As a result, pay can be considered as a vital aspect of job satisfaction, both extrinsically and intrinsically.

In addition, Spector (1997) stated a concern of pay is not in terms of pay level, as much as to pay fairness. Terpestra and Honoree (2004) found that most employees were not concerned with pay towards people in different jobs, but rather when people earned more in the same job. Consistency and justice of pay policies are more influential than differences in salary (Spector, 1997). In a homogeneous population, individuals are more likely to compare themselves to one another with regards to pay and be quite dissatisfied if other individuals in the same occupation

are paid more (Spector, 1997). Therefore, Terpstra and Honoree (2004) suggested that organizations should be concerned with both external and internal equity of pay policies.

Promotion

Promotion refers to the furthering of or the advancement of one's job and the opportunity to transition beyond current job tasks and responsibilities; it provides an avenue to broaden one's skills and talents (Kramer & Nolan, 1999). Promotions are important aspects of an employee's career and life, affecting other facets of the work experience. They constitute an important aspect of workers' labor mobility, most often carrying substantial wage increases (Kosteas 2009, Blau & DeVaro 2007, Francesconi 2001) and can have a significant impact on other job characteristics such as responsibilities and subsequent job attachment (Pergamit & Veum 1999).

While several studies have investigated the determinants of job satisfaction, relatively little attention has been paid to importance of promotions and promotion expectations. A study by Kosteas (n.d.) estimated the impact of promotions and promotion expectations on job satisfaction using the 1996-2006 waves of the National Longitudinal Surveys of Youth 1979 (NLSY79). Results showed that employees having received a promotion in the past two years or believed a promotion was possible in the next two years reported higher job satisfaction. Additionally, the study also indicated that past promotions had a lingering, but diminishing impact on current job satisfaction. Therefore, estimating the effect of both promotions and promotion expectations can serve as an important mechanism for eliciting greater effort from employees as well as reducing turnover. Nimalathan (n.d.) found that data extracted from the branches of People's Bank operating within Jaffna, Sri Lanka showed high level of fair promotion, reasonable pay system appropriate work itself and good working condition lead to high level of employees' performance. In other words, employee's job satisfaction positively

impacted their performance. Shields and Ward (2001) found that dissatisfaction with promotion and training opportunities had a stronger effect on intentions to quit than dissatisfaction with workload or pay. Cassel and Kolstad (1998) and Varhol (2000) agreed that promotion could be the next logical step in a successful career and a way to regain a passion for work when it's lost.

School leaders are responsible for educational programs and learning outcomes, the management and professional development of their staff, school finances and property and the relationships between the school and its community. The progression from high school teacher to leadership is a gradual development. The following is a typical hierarchical promotional progression in education:

- ↓ Classroom teacher
- ↓ Mentor to intern teachers
- ↓ Department Chair
- ↓ Dean of students or Academic Dean or Subject coordinator
- ↓ Vice Principal or Assistant Principal or Program Coordinator
- ↓ School Principal
- ↓ Assistant Superintendent
- ↓ Superintendent

In the school district where the study was conducted, classroom teachers may apply for the position of dean if they meet the following employment standards: The applicant must have a minimum of three years of any combination of education and experience that would provide the required knowledge and skills is qualifying; a master's degree in School Administration or related field; and in terms of experience, the applicant must have a minimum of three (3) years classroom teaching experience for all high school positions.

Supervision

Job satisfaction factors are work related, and job dissatisfaction factors are work environment related (Herzberg, 1959). Studies by Aebi (1972), Bullock (1963), Herzberg et al. (1959), Morris (1972), and Moxley (1977) found that job dissatisfaction was associated with supervision. However, Bowen (1980), Bowen and Radhakrishna (1990), and Seegmiller (1977), found that supervision was related to job satisfaction. Cano (1990) found no significant relationship between supervision and job satisfaction.

School supervision is a broad term that also refers to management style and compatibility with employees as a process to improve instruction and school environment. Since the emphasis on academic achievement for all students, principals have far more complex role than those educational leaders of the past (Dow & Oakley, 1992). “The role of the principal has become dramatically more complex...progressing from the role of manager to instructional leader to transformational leader” (Fullan, 1991). The principal is viewed as the site-based leader in all aspects of the school (Beck & Murphy, 1993). In effective schools the principal was seen as the instructional leader (Brookover et al., 1978). In regard to the role of the principal in effective schools, “They have strong administrative leadership without which the disparate elements of good schooling can be neither brought together nor kept together” (Edmonds, 1978, p.36).

Edward DeRoche (1985) has thoroughly emphasized that:

The school principal is a major influence on the quality of education in a school. The school principal, also known as the middle manager and the site administrator--- is the major influence on whether education is effective or ineffective; whether morale is high or low; whether the school climate is positive or negative; whether personnel are satisfied or dissatisfied; whether students achieve or don't achieve; whether parents and the public

are cooperative or uncooperative and whether there is effective or ineffective management and leadership (p. 5).

Although the significance of the relationship between supervision and job satisfaction remains unclear, empowerment appears to be the leadership variable with the greatest impact on teacher job satisfaction. A study conducted by Pearson and Moomaw (2005) showed that principals impacted teacher job satisfaction by how much the principal empowered the teachers at the school. In the study, empowerment was measured by items that inquired into teachers' perceptions of the administration in considering their opinions on matters that directly affected them, involved them in the development of school policies that affected their work, and how often their concerns were taken into account in administrative decisions. Similar results were found by Shead (2010) whereby principals maintained their degree of empowerment by appealing to the intrinsic value of the overall job of teaching through recognition, hiring assistants to ease the work involved in being a successful teacher, offering bonuses or monetary incentives for tutoring and training, encouraging teachers to further their education or to pursue specialized positions, and being a positive leader and role model for their staff. Herzberg et al (1959) agreed that leader and follower relationships are clearly perceived as a factor in a subordinate's job satisfaction.

Supervision and interpersonal relationship with subordinate teachers are important parts of the work environment as well as the culture of the school. Supervision can provide employees the opportunity to have input into policy issues and autonomy over their job tasks (Spector, 1997). According to Lowe and Schulenburg (2000), supervision has direct influence over three features of the work environment that most affect employment relationships: the resources

provided to enable people to be effective in their work; how work is organized and managed; and the task content on jobs.

Leadership is defined as “a process whereby an individual influences a group of individuals to achieve a common goal” (Northhouse, 1997, p. 3). According to Stenberg (1988), a principal’s leadership style may influence colleagues’ interaction with each other and the school’s performance. Loyalty and teacher job performance were heightened when principals displayed charisma, leadership expertise, and human relations skills (Isherwood & Hoy, 1973). Employees who were able to develop effective interpersonal relationships with their supervisor reported being more satisfied with their supervisor and work conditions (Beehr et al., 2006; Holloway, 1995).

Gallagher (1984) conducted research on effective principals. Teachers in this study preferred a principal who had concerns for others, was an open communicator, and believed in shared decision making. Although the principals included in this study perceived themselves as possessing these qualities, the teachers perceived their behaviors differently. Similarly, the attitudes and behaviors of employees have been found to be affected by the supervisory style of a leader (Bass, 1981; Fleishman, 1973; Stogdill, 1963). For example, Packard and Kauppi (1999) used the Job Descriptive Index Scale and the Work Environment scale and found that the democratic style of leadership was strongly associated with greater satisfaction. In addition they conducted a multivariate test of significance and found that factors called *supervisor support* on the Work Environment Scale and a factor called *supervision* on the Job Descriptive Index were significantly related to leadership. Leaders with styles that incorporated high involvement and supportive behaviors were consistently associated with employee satisfaction. Barnard (1983) studied teacher perception of leadership behavior and its relationship to job satisfaction. Using a

random sample of 580 teachers from a population of 12,096 East Tennessee teachers, Barnard asserted that teachers desire a leader who is both high in initiating structure and high in consideration.

On the opposite end of the spectrum, organizational leaders who alienate workers through their practices have been found to be less effective and efficient. “Whether or not an employee will give his or her services wholeheartedly to the organization and produce up to potential depends, in large part, on the way the workers feel about the job, fellow workers, and supervisors” (Ostroff, 1992. p. 964). When employees were under the leadership of a laissez-faire leader who exhibited weak task and weak relationship behaviors, employee satisfaction was low (Goodson, Mcgee, & Cashman, 1989). When teachers were surveyed to explore their reasons for leaving the field of education, one major indicator was ineffective leadership styles due to poor administrative support and student discipline problems (Buckley, Schneider, & Shang, 2004; Ingersoll 2001; Tye & O'Brien 2002). Furthermore, Natale (1993) found that teachers were leaving due to a lack of administrative support. Sheppard (1996) agreed that principals had a direct influence on a school’s organizational climate.

Fringe Benefits

Fringe benefits are forms of compensation made to an employee in addition to direct wages or salaries (Rebore, 2001). Particularly, it refers to benefits beyond compensation for their work and alternative way of rewarding the employees such as paid tuition for continuing education, medical insurance, dental insurance, life insurance, sick leave, paid holidays, parental leave, retirement, and 401K (Zou, 1996). The compensation variables can be grouped into three broad categories. The first involves *health* benefits and includes medical and dental insurance. These variables compensate the worker by providing a means to attain a higher quality of life

through good health care practices. The second group involves *pay* variables and includes tuition waivers, retirement, and profit sharing. These variables compensate the worker via current and/or future income. The third group involves *leave* benefits and includes paid vacation, and sick leave. These variables compensate the worker by allowing him or her time off without penalty for a variety of personal circumstances (Ewing, 2007).

The benefit package and the motive of the organization to provide appropriate benefits have a direct relationship with both employee attitudes and job satisfaction (Kouzes & Posner, 1995; Milton, 1989; Tremblay, Sire, & Balkin, 2000; Weathington & Tetrick, 2000). Factors such as flexible schedules and access to quality professional development or training can be the difference in an individual remaining the organization or seeking employment elsewhere (Alexander, 1998). At first consideration, desirable job attributes such as fringe benefits should increase job satisfaction. However, research findings are mixed at best and contradictory at worst. Thus, the theoretical impact of fringe benefits on job satisfaction is not immediately clear.

Donohue and Heywood (2004) reported positively significant estimates for such variables as paid vacation and sick pay but no significance for any of the remaining benefits: child care, pension, profit sharing, employer provided training/education, and health insurance. Uppal (2005) found similar results using the measure comprised of the number of fringe benefits employees received in the duration of their employment and found a direct positive relationship job satisfaction. On the other hand, Hart and Carraher (1995) found that lack of benefits could result in the converse, namely, “dissatisfaction, higher levels of absenteeism, lower levels of performance, and higher turnover rates” (p. 481).

In addition, the results of a recent study conducted by Artz (2008) on Fringe Benefits and Job Satisfaction indicated both union workers and workers with no children living at home did

not value fringe benefits as much as non-union workers and workers with children. The findings suggested that there is no significant difference between the preferences for fringe benefits between males and females. Both genders seemed to value similar fringe benefits including flexible work hours, parental leave and employer provided child care. However, only females significantly valued pensions while only males valued profit sharing. From the wide range of studies and their varied results, it is evident that the relationship between fringe benefits and job satisfaction are not conclusive.

Operating Conditions

All organizations have operating conditions that explain the required rules and work policies that are to be performed and followed by employees of that organization. Specifically, operating conditions include policies, procedures, rules, and perceived red tape within an organization (Spector, 1997). Operating procedures exist to facilitate a working environment that employees can understand and follow (Andorka, 2003). In most organizations employees are charged to identify ways manage their workload in a manner that adheres to an organization's operating procedures (Aplander & Lee, 1995).

In a study on job satisfaction among nurses, Chen, Lin, Wang and Hou (2009) found a positive relationship between high satisfaction and operating conditions which clarified rules, procedures, expectations, and responsibilities of employees within the work environment. A study by Watson, Thompson and Meade (2007) used the JSS to measure invariance of the nine subscales across law enforcement job contexts. Respondents included 1,198 patrol officers and 312 administrative officers. The *Operating Conditions* subscale (i.e., "I have too much to do at work") displayed the greatest between-group response differences. The administrative officers' responses to this item were more closely associated with their overall satisfaction with operating

conditions, while patrol officers were much more likely to agree with this item as a contributor to their dissatisfaction. Data suggested patrol officers were more likely to develop strong attitudes based on perceived high workload, which could be due in part to contextual factors related to the job. For example, the pace of work for patrol officers may have been more variable and unpredictable, with frequent distractions and interruptions occurring at irregular intervals than their administrative officer counterparts. Similar results were also found by Singh (2010) among pharmaceutical sales force. The results indicated that job content factors such as operating procedures and regulations along with the work itself explained a significant proportion of variation in overall job satisfaction.

Ineffective operating procedures can help explain why employees are dissatisfied with work related policies, goals, and responsibilities within the organization (Rosenfeld, Richman, & May, 2004). A study by Sierpe (1999) used JSS to measure job satisfaction of librarians. The results showed that librarians were dissatisfied with operating procedures and how communication was conveyed throughout the work environment. Another study involving naval personnel using the same JSS instrument indicated the lowest satisfaction levels recorded related to operating procedures. It was suggested that a high level of occupational stress reduced satisfaction with regards to operating procedures.

Operating procedures, including rules, procedures, and red tape in the organization may interfere in the execution of work tasks. Too much paper work and work overload are also part of operating procedures that could lead to job dissatisfaction. An examination of the position of Director of Special Education revealed they were least satisfied with operating procedures. Specifically, respondents expressed dissatisfaction with the current legislative requirements and the mandated paperwork that were unrelated to educational issues (Lowry, 2004). Consequently,

accurate understanding of job requirements can help the individual adjust to the assigned task by removing any uncertainty and minimizing trial and error risks (Daley, 1986).

Contingent Rewards

Contingent rewards refer to those non-wage forms of compensation that recognize, appreciate, and reward employees for good work. The purpose of having contingent rewards is expected to increase or reinforce certain desired behaviors (Viken & McFall, 1994). However, if rewards are to affect job satisfaction in a positive manner, they must be directly linked to some form of desired performance (Rebore, 2001). Spector (1997) defined contingent rewards satisfaction as "satisfaction with rewards (not necessarily monetary) given for good performance" (p. 8).

In many studies, certain types of feedback have been shown to be related to performance (Hinkin & Schriesheim, 2004; Houlfory, Koestner, Joussemet, Nantel-Vivier & Leke, 2002; Kluger & DeNisi, 1996; Pittman, Davey, Alafat, Wetherill & Kramer, 1980; Ryan, Mims & Koestner, 1983). There are two situations for which appropriate contingent rewards have been found to be effective. First, when they provide information that clarifies expectations for subsequent desired behavior. Second, when they affect thoughts or feelings, such as pride, motivation, or guilt. Lack of performance-related contingent rewards could therefore result in confusion and dissatisfaction (Kluger & DeNisi, 1996). According to Deci, Koestner & Ryan (1999), positive performance feedback has generally been found to enhance intrinsic motivation. A study conducted by Vansteenkiste, & Deci (2003) determined that positive performance feedback among contingent rewards is crucial for maintaining intrinsic motivation in competitive settings. "Employees may interpret feedback as a signal that superiors expect them to continue to perform at a high level. In such a case, the subordinates will regard the positive reinforcement as pressure to keep performing at the top of their capacity" (Bass & Stodgill, 1990, p. 369).

Similarly, Bass and Stodgill (1990) suggested that negative feedback may be interpreted as helpful, and perhaps can be regarded as a contingent reward, rather than as a contingent punishment. Together these findings suggest that positive performance feedback can be a powerfully positive motivator.

The use of reinforcement to shape an individual's behavior began in the 1920s with classic operant conditioning proposed by B. F. Skinner (1969). He found that a stimulus produced a specific behavior. He was convinced that behavior could be altered by simply using positive and negative types of reinforcement. That, in turn, resulted in a consequence, and the consequence would affect future behavior until the desired behavior was achieved. Table 3 exhibits two reinforcers that strengthened behaviors and two that weakened them. Reinforcement must be used appropriately to achieve the desired effect.

Table 3

B.F. Skinner's Operant Conditioning Reinforcers

Reinforcer	Rationale	Example
Positive reinforcement	Behavior that gets rewarded gets repeated	Providing praise for a job well done
Negative reinforcement	Behavior will be repeated to avoid an undesired outcome	Getting work done on time to avoid a reprimand
Punishment	Behavior that gets punished will not be repeated	Criticizing poor quality work
Extinction	Withholding a reward will weaken a response	Not responding to attempts at humor in staff meetings

Source: B. F. Skinner, *Contingencies of Reinforcement* (New York: Appleton-Century-Crofts, 1969).

When supervisors offer incentives and rewards to employees, they have an effect on effort and performance (Klein & Higgins, 1992). Findings of a study conducted by Hinkin and Schriesheim (2004) with employees of two different hospitality organizations suggested that feedback, known as contingent reinforcement, improved performance, even when that feedback

involved negative or corrective comments. In addition, the study also found that the omission of any commentary on good performance by the supervisor had a direct negative relationship with workers' effectiveness and a small, direct negative relationship with satisfaction. Similar results were obtained from a laboratory study done by Eisenberger, Rhoades, and Cameron (1999) that sought to examine the relationship between performance-contingent rewards, perceived autonomy, and intrinsic motivation. Performance-contingent rewards are defined as rewards given for performing an activity well, matching a standard of excellence, or surpassing a specific criterion (Ryan, Mims, & Koestner, 1983). Eisenberger, Rhoades & Cameron (1999) revealed that performance-contingent reward enhanced perceived autonomy and both self-reported enjoyment and free-choice persistence. These findings were interpreted as demonstrating that performance-contingent rewards have a strong positive impact on perceived autonomy, and that perceived autonomy is in fact the key mediating variable in promoting intrinsic motivation and therefore higher job performance.

Coworkers

Human beings are gregarious creatures and by nature must interact with one another in order to be healthy (McAdams, 1988). Collegial support promotes a sense of confidence about working with colleagues and asking others for help, information, and advice (Daughtry, 1989). Theorists such as Maslow (1954) have discussed the importance of interpersonal relationships among human beings related to health and survival. Social support is an important resource at work and helps employees interpret and understand their social reality. Through further understanding of support at work, supervisors acknowledge the fact that their employees have global beliefs concerning the extent to which their superiors, coworkers, and organizations

provide support and these beliefs can greatly affect work related outcomes (Ng & Sorensen, 2008).

Spector (1997) defined coworkers as an associate, fellow worker, or employee with whom one works; coworkers include peers and supervisors. Relationships with both coworkers and supervisors are important to maintain job satisfaction (DeVaney & Chen, 2003; Ducharme & Martin, 2000). An employee's level of job satisfaction might be a function of personal characteristics and the characteristics of the groups to which the employee belongs (Hodson, 1997). Ducharme and Martin (2000) contended that attempts to increase worker integration on a purely social level (e.g., via company-sponsored picnics, parties, and other social activities) play an integral role and significantly contribute to the overall job satisfaction of full-time employees. These attempts may be even more beneficial when combined with efforts aimed at building effective work teams that enhance coworkers' abilities and opportunities to provide on-the-job assistance, advice, and information. Hill (1987) suggested that the desire for social contact originates with one or more of the four social rewards with which social contact may be associated:

1. Positive effect of stimulation associated with interpersonal closeness and communion;
2. Attention or praise;
3. Reduction of negative affect (specifically stress) through social contact, and
4. Social comparison or seeking the support of other people in similar positions or organizations (p. 1011).

The social context of work is likely to have a significant impact on a worker's attitude and behavior. Difficult coworkers, an unreasonable boss, or poor working conditions in relation to both coworkers and supervisors can decrease job satisfaction and lower productivity. Several

studies have taken a social approach to job satisfaction, examining the influence of coworkers on job satisfaction. In regards to coworkers, studies have shown that coworkers provide social support to each other (Self, Holt, & Schaninger, 2005). Social support from coworkers is a promising factor that may have major contributions to the relationships that exist between work, coworker relationships, and well-being (Ducharme & Martin, 2000). Hurlbert (1991) found job satisfaction to be highest among employees whose off-the-job social circles consisted mainly of coworkers. A study conducted by Susskind, Kacmar and Borchgrevink (2007) with service providers suggested employees who received support from their coworkers and superiors while performing their duties were likely to show a stronger commitment to the service process. Findings in a study with correctional officers by Paoline, Lambert and Hogan (2006) supported the contention that a cooperative environment where correctional employees worked together rather than competing against one another lead to positive outcomes.

Good relations between coworkers are necessary to create an atmosphere of teamwork, which in turn decreases job stress and heightens job satisfaction. Knoblock and Goldstein (1971) were “struck with the realization one of the core concerns teachers experienced was of loneliness” (p. 28). In education, Inger (1993) conducted research related to the intent of teacher-teaming and found that it can “save [the novice teachers] from the usual sink-or-swim ordeal” due to the collaboration which “breaks the isolation of the classroom and leads to increased feelings of effectiveness and satisfaction” (p. 1). Teaming enhanced the performance of teachers and provided novice teachers assistance for professional and personal development during the formative first year in the profession (Ondak, 1996). As for the more experienced teachers, “collegiality prevents end-of-year burnout and stimulates enthusiasm” (Inger, 1993, p. 1). Therefore, better relationships among coworkers resulted in greater levels of job satisfaction and

quality of the work relations with colleagues and administration (Kalleberg & Mastekaasa, 2001).

Conversely, coworkers can constitute sources of interpersonal conflicts for an employee in the workplace with the implication for acts of wide ranging antisocial behaviors (Bruk-Lee & Spector, 2006). Coworker conflicts were associated with lower job satisfaction, while worker solidarity was associated with greater job satisfaction and good relations among workers and leaders (Hodson, 1997). Therefore, unfair treatments received from coworkers have been demonstrated to be of considerable concerns to employees (Donovan, Drasgow & Munson, 1998). An employee may develop stress reactions due to membership of a less cohesive workgroup, having inadequate social support from coworkers, or exposure to hostile acts from coworkers (Bruk-Lee & Spector, 2006; Etzion, 1984; Mueller, De Coster, & Estes, 2001).

Nature of Work

Spector (1997) defined the nature of work factor as an individual's satisfaction with the type of work that is performed and the job tasks themselves. Specifically, nature of work focuses on the intrinsic satisfaction one gets from doing a job. Job satisfaction is not merely an employee's responsibility but an organization's ability to satisfy the "needs, values, and expectations of employees" (Zhang, MeMichele, & Connaughton, 2004, p. 187). It is also related to job performance (Ostroff, 1992). Research studies across many years, organizations, and types of jobs show that when employees are asked to evaluate different facets of their job such as supervision, pay, promotion opportunities, coworkers, and among other subscales, the nature of the work itself generally emerges as the most important job facet (Judge & Church, 2000; Jurgensen, 1978). Similar findings by Khaleque and Chowdhary (1984) stated that factors relevant to overall job satisfaction among industrial managers revealed top managers considered

the nature of work as the most important factor of job satisfaction. Of all the major job satisfaction areas, satisfaction with the nature of the work itself—which includes enriched job characterized by variety, job challenge, autonomy, variety, responsibility and scope—best predicted overall job satisfaction, as well as other important outcomes like employee retention (Turner & Lawrence, 1965; Fried & Ferris, 1987; Parisi & Weiner, 1999; Weiner, 2000). The most notable situational influence on job satisfaction was the nature of the work itself - often called intrinsic job characteristics (Saari, & Judge, 2004). Job tasks that characterize the work place also are likely to play a definite role in job satisfaction among workers.

The most significant aspects relating to job satisfaction are those which are relevant to the working conditions and the nature of work (Hunjra, Chani, Aslam, Azam, & Rehman, 2010), The work environment and job tasks can make the job meaningful, create a sense of pride in doing the job, and make the job enjoyable (Spector, 1997; Kulhavy & Schwartz, 1981; Llorente & Macias, 2005). In addition, a supportive work environment fosters a sense of satisfaction among employees and organization impact (Robertson, 2003). Lowe and Schellenberg (2000) found a healthy and supportive work environment in addition to receiving the resources needed to do the job well were identified as the two most crucial factors in creating robust employment relationships. The study documented a strong link between work environments, employment relationships, quality of work life, and organizational performance.

The prevailing argument is that organizations must be responsive to not only providing a job and income, but a positive work environment (Morrison, 2002). Creating a supportive and healthy work environment is a prerequisite for strong employment satisfaction. This taps into the physical, social and psychological aspects of the workplace – everything from workloads to

respect (Lowe & Schellenberg, 2000). It also means providing workers with the resources needed to do their job, such as training, equipment and information.

Job satisfaction was greater among workers in jobs that had allowed them to exert their own judgment to get work done and demonstrate their ability to delegate tasks (Basom & Frase, 2004; Staudt, 1997). Job satisfaction was negatively related to the performance of routine tasks, yet positively related to the performance of more complex and autonomous tasks (Blau, 1999; DeVaney & Chen, 2003). A study conducted by Lowry (2004) used the JSS to assess the level of job satisfaction of directors of special education. The results indicated that the nature of work was the best predictor of overall satisfaction. Respondents who were satisfied with the day to day activities of the job and the accomplishments made in the performance of the job were more likely to report overall job satisfaction. A similar finding was found by Taber and Alliger (1995). Fields (2002) reported that the more time an employee spent on enjoyable tasks in the workplace, the higher the level of global satisfaction. This supported the findings by Sergiovanni (1967) that factors related to high attitudes of teacher satisfaction were related to the work itself. Outside the research within the field of education, Watson, Thompson and Meade (2007) measured invariance of the JSS across law enforcement job contexts. Results demonstrated higher satisfaction when jobs included variety and challenge. Patrol officers who perceived their everyday job tasks to be more varied and challenging were associated with greater job satisfaction than their counterparts.

On the contrary, a counterproductive work environment has contributed to feelings of dissatisfaction with superiors, job duties and responsibilities, and ultimately the work itself (Jablin & Krone, 1994). Employees who are able to improve their work experience often

experience an enhancement in their overall well-being (Brown & Mitchell, 1993; Eisenberg & Goodall, 2004; Wheatley, 2001; Sias, 2005).

Communication

Communication provides employees with information that clarifies work tasks. Generally, as employees experience more positive communication relationships, they also experience more positive job outcomes such as job satisfaction. Attempts have been made to investigate institutional communication and explain the motivation of an employee's communication habits with coworkers and supervisors (Anderson & Martin, 1995). According to Rosenfeld, Richman and May (2004), "Members of today's complex institutional structures must face increasingly difficult challenges to address the role of communication" (p.30). Orpen (1997) argued that employees who were deeply involved in their jobs and whose jobs were key to their sense of self-worth were more likely to be affected by the quality of communication at work than those whose jobs were irrelevant to how they feel about themselves.

Supervisory communication styles repeatedly have been shown to be related to subordinate satisfaction. Baker (1992) stated "strong and weak task-related communication, informal socializing, advice-giving, and advice getting organization may suffer from work-related disintegration" (p. 11). Indeed, studying communication issues in interpersonal relationships among superior-subordinate is one of the most frequently researched topics (Allen, Gotcher, & Seibert, 1993; Jablin & Krone, 1994). One reason is that employees need communication with superiors and coworkers to understand their environments and roles (Jablin & Krone, 1994).

In order for leaders to persuade people to follow their vision, they need to communicate effectively by appealing to the interests of the followers (Salacuse, 2007). When leaders

effectively communicate their vision, they win the confidence of followers, which in turn aids in communication satisfaction between the leader and follower (Pavitt, 1999). Competent communicators must employ communicative resources such as language, gestures, and voice (Stohl, 1984), and in order for supervisors to be perceived as competent communicators, they must share and respond to information in a timely manner, actively listen to other points of view, communicate clearly and succinctly to all levels of the organization, and utilize differing communication channels (Shaw, 2005).

In a study conducted by Fix and Sias (2006), person-centered communication (PCC) was found to be a better predictor of job satisfaction than the quality of their leader-member relationship (LMX). PCC generally refers to the extent to which one's communicative messages consider the perspectives of others. More specifically, PCC refers to messages in which the higher-status party (e.g., supervisor) encourages the lower-status party (e.g., employee) to reflect upon the complexities and contingencies in a given situation. Supervisors using these PCC message features implicitly convey a genuine concern for their employees, which can enhance the quality of their relationships and employee satisfaction. PCC is applicable to the organizational context because it addresses relationships between individuals of unequal status. How the members perceived their leaders' use of PCC were associated with their perceptions of the quality of their leader-member relationships. The more person-centered employees expected their supervisor to be in communicating with them, the higher their overall job satisfaction.

In a study conducted by Bartlett (2001), five communication behaviors were tested to determine their relationship to subordinates' job satisfaction. Findings indicated that four of the five behaviors (offers of help, offers of cooperation, frequency of contact, and trust) were substantially related to subordinates' job satisfaction. Specifically, the study defined *Offers of*

Helping as assisting an individual with an organizationally relevant task or problem. Distinct from helping, cooperation has been defined as “pro-social behavior performed for the common benefit of both donor and recipient,” (Bartlett, 2001, p. 11) therefore cooperation is essential for organizational success. Little is known about the impact of *Frequency of Contact* between superior and subordinate on subordinates’ job satisfaction levels. However, what is known is that contact between superior and subordinate is important and isolation reduces subordinate satisfaction. More importantly, the quality of communication was found to be more important than quantity when determining the degree of satisfaction with the relationship. According to Smith (1973), face-to-face communication is and probably always will be the preferred source of information for all employees.

Trust in organizations has been defined as defined as speaking truth and honoring commitments (Miles, Patrick & King, 1996). Subordinates, by definition, have the most to lose, so it is up to their superiors to begin the trusting process. Of all communicative behaviors, *Self-Disclosure* has the closest ties to interpersonal bonding. Harris (1993) defined it is defined as making the self-known to other persons. Descriptive self-disclosure included personal information; evaluative self-disclosure includes personal feelings, judgments and opinions. With the exception of self-disclosure, employees who received the stated behaviors of offers of help, offers of cooperation, frequency of contact, and trust from their immediate superiors felt more satisfied than those who did not (Harris, 1993).

Moreover, effective organizational leaders understand the importance of conveying the messages of the organization informally. The proper use of artifacts such as posters, wall pictures, items on one’s desk, and other artifacts constantly remind employees about their organization and its values (Kouzes & Posner, 2002). Stories are also important forms of

communication. Through stories, people pass lessons from one generation to another, tell about the culture, and bring about great moral lessons that identify and align with values and acceptable behaviors (Schein, 2004). In the workplace, stories function as a type of mental map that assists people in realizing what is important such as their purpose, values, and clarify how things are carried out in a particular group or organization (Kouzes & Posner, 2002).

The positive relationship between organizational communication and job satisfaction has been well documented. Studies demonstrate when people's needs are met through satisfying communication, they more than likely build relationships, stay in them, and experience satisfaction (Rubin, 1993). Research in the field of speech communication suggests that when people listen to stories, they become active thinkers in order to decipher the meaning of the story and to make sense out of it (Jameson, 2001). Other research shows that stories greatly influence the decision making of the individual (Kouzes & Posner, 2002). A study by Smith (2000) showed a strong relationship between principal communication and job satisfaction. This was especially true in the areas of feedback, rewards, and support. Results of another study by Madlock (2008) found a strong relationship between leadership style and employee job and communication satisfaction.

On the other hand, counterproductive communication contributes to feelings of dissatisfaction with superiors, jobs, and organizations (Jablin & Krone, 1994). According to Korte and Wynne (1996), a deterioration of relationships in organizational settings resulting from reduced interpersonal communication between workers and supervisors negatively influenced job satisfaction and sometimes led to employees leaving their jobs. When channels of communication are open in the workforce, motivation, interest, and cooperation usually exists among individuals within and outside the school system (Weiss, 2002).

Gender

Studies which have examined gender differences as determinants of job satisfaction have been inconsistent. There are no simple conclusions about the differences between males and females and their job satisfaction levels. Some studies reviewed by Herzberg et al. (1957) indicated that males were more satisfied with their jobs, while other studies by Holmes (2007) indicated that females were more satisfied. One of the most often-cited studies of gender differences in job satisfaction was a report by Quinn, Staines and McCullough (1974). In a review of five national surveys, they found men were more satisfied in three surveys, and women were more satisfied in two surveys. Overall, they implied that there is no overall difference in job satisfaction by gender. A study by Abu-Bader (2005) study failed to detect job satisfaction differences based on gender. Both male and female social workers reported similar scores of job satisfaction. In a study of secondary agricultural education teachers in Ohio, Cano and Miller (1992) found that both males and females were equally satisfied with their jobs. These findings were consistent with those reported by Barber (1986), Greenberger, Goldberg, Hamill, O'Neil and Payne (1989), Rentner and Bissland (1990), and Castillo and Cano (1999), which also found no significant job satisfaction differences based on gender. Therefore, it is implied that male or female teachers were not necessarily more or less satisfied with their jobs.

In contrast, the findings above were inconsistent with the claim made by McNeely (1984), Greenberg and Baron (1993), and Mi'ari (1996) who reported that female employees tended to be less satisfied than their male counterparts. A study by Chui (1998) that analyzed findings from 326 lawyers showed women to have significantly lower job satisfaction. Specifically, this was due primarily to their lack of influence and promotional opportunity. In addition, research within occupations has found women to be more satisfied than their otherwise

equal male counterparts. McDuff (2001) studied the clergy; Dhawan (2000) studied scientists; Hull (1999) studied attorneys; Beck, Lazer, and Schmidgall, (2006) studied marketing executives; and Bashaw (1999) studied doctors. Several explanations were proposed for women's high satisfaction. The explanation most commonly cited was that women have lower expectations than men. Secondly, women may be socialized not to express discontent as commonly as men (Hodson, 1989; Hagan & Kay, 1995). A third explanation was that women and men may value different job characteristics.

As a general rule, women place less value on remuneration. Clark (1997) showed that women were significantly less likely to identify earnings as the most important aspect of a job. Moreover, workers who identified earnings as the most important aspect had lower overall job satisfaction. Donohue and Heywood (2004) indicated that higher earnings added more to the job satisfaction of men than to that of women. McNeely (1984) found a significant difference between employed women and men's job satisfaction in that women were found to be more intrinsically satisfied than men. In general, women attached more importance to social aspects, and men place greater value on pay, advancement, and other extrinsic features (Murray & Atkinson, 1981). Finally, Konrad, Corrigan, Lieb and Ritchie (2000) performed a meta-analysis of 31 studies in the field of organizational behavior examining the relative preference by gender of job attributes. They concluded that men considered earnings and responsibility to be more important than women. On the other hand, women considered good coworkers, a good supervisor, the significance of the task, and flexibility of schedule to be more important than men.

Quinn and Staines (1979) found that women tended to place greater emphasis than men on interpersonal relationships at work and the so-called *comfort* factors such as hours and travel

time from home to work, which make their work more compatible with household responsibility. Women also placed greater value in job satisfaction based on the *flexibility* of the job to accommodate family issues (Bender, Donohue & Heywood, 2005). Flexibility was a crucial element in the bundle of job characteristics that appealed to women and that it played an important role explaining the relationship between job satisfaction and gender segregation (Lombard, 2001). Women preferred to assume careers that allowed flexibility (Bender, Donohue & Heywood, 2005) which, at least in part, explained their restriction to certain occupations that tend to result in their lower earnings (Hundley, 2001).

Increased usual hours of work were often associated with lower job satisfaction of women, but not of men. In a study that examined time pressures facing faculty members in the United States, Jacobs and Winslow (2004) found female professors were especially likely to report being dissatisfied with their workload and job satisfaction. This was especially prevalent within assistant professors who worked 60 or more hours per week. This created an issue for female professors to cut back their work weeks slightly upon the arrival of children while male faculties did not. This reflected not only the hours they work but the scarcity of stay-at-home husbands and their priority of having a flexible work week to accommodate to family needs. These studies suggest that men and women make occupation and workplace choices based on different preferences over job attributes.

Age

The impact of age on organizational behaviors, particularly job performance and satisfaction, has intrigued researchers. It is one area that has received considerable attention, with most of the findings indicating a positive association (Siu, Spector, Cooper & Donald, 2001; White & Spector, 1987). A positive relationship was found between age and organizational

factors such as job involvement and commitment (Waldman & Avolio, 1990) and job performances (Haight & Belwal, 2006). Extensive review by Rhodes (1983) supported this stance in her meta-analysis of more than 185 research studies involving age-related differences in three major categories of variables: work attitudes and work behavior; values and needs; and preferences. Industrial gerontologists (Haight & Belwal, 2006) and safety researchers (Siu et al., 2001) who have examined this relationship have found age (and work experience) to be the most important antecedents and essential correlates of organizational performance. Meanwhile, meta-analyses by Waldman and Avolio (1986) showed a pattern of increases in performance, as measured by productivity indices, at higher ages. Implications concerning personnel policies regarding older employees indicated more positive relations with age for professionals than for nonprofessionals.

In addition, age has been related to measures of occupational stress, organizational commitment, and attitude within job satisfaction (Cleveland & Shore, 1992). A study by White and Spector (1987) confirmed the positive linear relation between age and job satisfaction. Subjects in the study consisted of 496 city and county managers working in Florida. They attempted to account for this relationship by measuring variables using related demographics—age, salary, organizational tenure, position tenure, and organizational level. This study found that older workers got more of what they wanted out of work. Another study examined the relationship between age and job satisfaction among Ghanaian industrial workers categorized into 4 age groups: 19-29 years; 30-39 years; 40-50 years; and 51 years and above. The results revealed a positive association between workers' age and job satisfaction. Specifically, the older workers expressed the highest level of job satisfaction. It appeared that older workers had constructive perceptions and held more positive attitudes than their younger counterparts

(Gyekye & Salminen, 2009). Similar results were found by Gillis and Kim (2004) who conducted a study among 263 case managers (CMs) in community-based mental health agencies that indicated job satisfaction differences did exist between different age categories. Younger CMs reported higher overall job stress, higher levels of perceived job pressure, and a lack of organizational support than older, more experienced CMs. Older workers perceived their case management positions as less stressful and more satisfying than their younger counterparts. The authors suggested that older CM's expectation of their job diminished over time and therefore their job-related ratings were likely to increase since their expectations were lowered.

Similar results were found in education. Berns (1989) reported that as the age of the teacher increased, so did his or her overall job satisfaction level. A study by Nestor and Leary (2000) examined the relationship between tenure and non-tenure track status of Extension faculty and job satisfaction. Results showed staffs with 21+ years at the institution were more satisfied than faculty with 1-5 and 6-9 years. However, the research findings on the relationships among age and job satisfaction in the K-12 education field is limited (Czaja, 2001), therefore more research in this arena was suggested for further study.

Race and Ethnicity

Members of ethnic minority groups are making up increasingly larger proportions of the workforce. However, little of job satisfaction research has focused on ethnic minority populations. The research on ethnicity/race as it correlates to job satisfaction has consistently shown a positive relationship. Specifically, social categorization and the salience of group identities play an integral role in shaping the experiences and attitudes of Whites and members of racial and ethnic minorities in many work environments.

Ash (1972) completed two separate studies that compared the job satisfaction of Black, White, and Spanish-surname among female production and clerical employees. In one study, 112 White, 63 Spanish-surname, and 47 Black female clerical and production workers in an electrical components company completed a Science Research Associates employee attitude survey. In the second, 56 White and 14 Black female non-academic clerical employees in a university took the Job Description Index. In both studies, Black women were more dissatisfied than White. Spanish-surname employees (in the first study) were generally more satisfied than Blacks but less satisfied than Whites. More recently, a pattern of dissatisfaction of non-White employees have been studied by Rosser (2005) that found intrinsic job satisfaction for faculty of color to have diminished from 1993 to 1999.

In general, minority faculty members report that they are very conscious of their race or ethnicity and feel stigmatized. Satisfaction with the job and quality of life at predominantly White institutions was significantly lower for faculty of color than for White faculty members (Thomas & Asunka, 1995). This is consistent with the findings of Nieman and Dovidio (1998) on the relationships among racial and ethnic minorities in psychology departments at colleges and universities across North America. This study examined job satisfaction and subjective feelings of distinctiveness. Distinctiveness was defined as stigmatizing feelings associated with token status of racial/ethnic minorities in academia. It was hypothesized that minorities occupying lower academic ranks would feel more distinctive and less satisfied with their jobs. The data supported the hypothesis, most notably among Black faculty members in comparison to their White faculty counterparts. A later study by Dovidio, Gaertner and Niemann (2001) showed minority-group faculty members (i.e., Blacks, Hispanics, and Asians) had higher levels of feelings of racial/ethnic stigmatization and lower levels of job satisfaction than did White

faculty members. Among minorities, faculty who were the only member of a minority group in their department (solo status) had stronger feelings of stigmatization and lower levels of job satisfaction than did those who had other minority group members in their department (nonsolo status).

A similar study conducted to better understand the effects of diverse demographic faculty characteristics on dimensions of job satisfaction found race/ethnicity had mixed effects on dimensions of job satisfaction, but the effects of race/ethnicity tended to be constant across discipline (Seifert & Umback, 2007). The results revealed rather large differences between racial/ethnic groups in their satisfaction with compensation and opportunities for advancement. Both Asian Pacific Islanders and Hispanic faculty were less satisfied with this component of extrinsic satisfaction than their White peers, while African American and Hispanic faculty perceived less equitable treatment for female faculty and faculty of color than their White colleagues.

Consistent with previous evidence, Holmes (2007) investigated the causes of high transient rates among employees working for the federal government. The results indicated there was a correlation between ethnicity and job satisfaction. The data appeared to show that Blacks had a lower job satisfaction rates than the other groups (Caucasian, Hispanic, Asian, Native American, and Other).

Marital Status

The available studies focused on job satisfaction are inconsistent in their findings in regards to married, divorced, single, and widowed individuals. One of the earliest studies conducted by Herzberg et al. (1957) suggested that a clear conclusion could not be drawn concerning job satisfaction and its relationship to marital status due to additional factors and variables that were not taken into account. First identified by Greenhaus and Beutell (1985),

work–family (W–F) conflict is a type of inter-role stress that arises in response to simultaneous and frequently incompatible pressures from an individual’s work and family domains.

Differences in the experience of work–family (W–F) issues between employed single and married mothers were investigated in a study by McManus, Korabik, Rosin and Kelloway (2002) that determined married individuals reported higher satisfaction than single mothers.

It is important to determine whether the experiences of employed single and married mothers are different because the presence or absence of differences could have both personal and organizational consequences. For example, single mothers may be more susceptible to W–F conflict than those in dual-earner contexts because they are likely to have greater role demands, more limited resources at their disposal, a greater imperative for paid employment, and stronger constraints on their job mobility (Casey & Pitt-Catsouphes, 1994; Greenberger et al., 1989). Single mothers interpret their circumstances as differing from those of mothers in dual-earner families in that they have less support, less personal time, more stress, and greater difficulty balancing work and home life (McManus et. al., 2002).

Examination of mean differences between single and married employed mothers on the variables related to the W–F interface is important for identifying and satisfying the unique needs of parents in different family structures. The results of the research by McManus et. al (2002) demonstrated that reduced W–F conflict was associated with job satisfaction. While the absence of a spouse may translate into fewer family demands for some single mothers, it may nonetheless play a role in their job dissatisfaction. Single mothers have reported feeling less supported due to their family type from the absence of a spouse, which translates to lower job satisfaction. On the other hand, married women with lower family demands reported to be more satisfied in job and family satisfaction. This was confirmed in a study where marital status was related to the job

satisfaction levels of 4-H agents as indicated by Bowen et al. (1994), who found that married 4-H agents (agents work closely with youths, adults, and volunteers in delivering Extension education programs) were more satisfied with their jobs than those who were single.

Extending on previous research of married individuals expressing higher job satisfaction, Fetsch and Kennington (1997) found both married and divorced agents working in Cooperative Extension programs to be more satisfied with their jobs than agents who were never married, remarried, or widowed. Beck, Lazer, and Schmidgall (2006) conducted a study that confirmed similar results in concerning the satisfaction of lodging sales and marketing executives on different job attributes. Results indicated satisfaction with position varied by marital status. Significant differences were found based on married and divorced respondents are more satisfied with their current positions and expressed higher job satisfaction than their single or widowed respondents.

Education Level

The relationship between educational level and job satisfaction remains unclear. Some studies have shown that the higher the educational level, the more likely employees were to be satisfied with their work (Glenn & Weaver, 1982), while other studies indicated that workers with more education have a lower job satisfaction level (Vollmer and Kinney, 1955). Furthermore, other studies have demonstrated no relationship between the two. Steel (1991) and Dortch (1995) both found that more educated employees were more satisfied with their jobs than those with less education. A study on vocational teachers conducted by Berns (1989) discovered that a teacher's educational level also affected his or her overall job satisfaction level. A teacher with a Master's degree was more satisfied with his or her teaching position than a teacher with only a bachelor's degree.

In contrast, other studies on relationship between education and job satisfaction have reported negative results. Klien and Maher (1966) indicated that college-educated managers were less satisfied with pay and ultimately job satisfaction than non-college educated managers. Similar findings were reported by Metle (2001) from a study that explored the relationship between education and job satisfaction among women employees in the Kuwaiti private banking sector. Findings in the study showed a slightly inverse relationship between the level of education and feeling of satisfaction with work itself. Satisfaction declined as education levels increased. It was found that higher education levels tended to increase workers' expectations, particularly with respect to promotion and additional responsibilities, and hence decrease the levels of job satisfaction.

Still other studies found no relationship and inconsistent patterns between education and work satisfaction (Gordon & Arvey, 1975; King, Murray & Atkinson, 1982). A meta-analysis was conducted by Brush, Moch and Podyan (1986), involving twenty-one independent studies and over 10,000 employees. Among the twenty-one studies, eleven involved manufacturing organizations and ten were in service organizations. Out of the ten service organizations, seven were government organizations, two public utilities, and one was a hospital. Correlations describing the relationship between education and job satisfaction across the different studies varied greatly. They concluded that no pattern of significant correlations with job satisfaction was observed for levels of education. The results from the series of studies suggested that further research should be directed toward explaining the associations between demographic variables (i.e. gender, marital status, salary, and level of education) and job satisfaction, which were not included or measured (Brush et al., 1986).

National Board Certification & Merit Pay

Merit pay, according to the Department of Labor, is defined as “a raise in pay based on a set of criteria set by the employer” (Wages, 2006, p.1). Merit pay systems implemented in the school districts across the country vary the set of criteria. Some merit pay systems are based on student achievement as evidenced through standardized test scores, while other systems are based on the results under the instructions of individual teachers. In this study, the term “merit pay” is used synonymously with “pay for performance,” “merit based pay,” and “incentive pay” to mean compensation paid to teachers who are deemed creditable through an evaluation process used by a state agency, district, or school site. Assessing and rewarding excellence through merit pay increases accountability and raises the bar of professionalism in teaching (McCown, 2004).

Seyfarth (2002) suggested that current teacher salary schedules “have one major weakness: They fail to attract and hold enough high-quality teachers” (p. 174). He also suggested that merit pay plans have three potential advantages. Rewarding employees for good performance may “help attract quality employees, provide an incentive for greater effort by current employees, and reduce the level of attrition among more productive employees” (p. 175).

The National Board for Professional Teaching Standards (NBPTS) is often used as an example of merit pay due to the demanding requirements and optional financial stipend. The NBPTS is a teacher-led national standards board whose goal is to advance the teaching profession by defining, assessing, and shaping teaching excellence. The NBPTS was established in 1987 as an independent, nonprofit organization by the Carnegie Corporation of New York, with the mission to create national teaching standards and a national certification process for accomplished teachers (NBPTS, 2001a). Created in response to the recommendations of the 1986 Carnegie Forum Task Force report *A Nation Prepared: Teachers for the 21st Century*, the report claimed that, like other true professions, the teaching profession should gather experts in

the field to codify teacher knowledge and establish a mechanism for holding the profession accountable for obtaining and using that knowledge (Wilson & Berne, 1999). The formal mission of the NBPTS is to set rigorous standards for accomplished teaching practice, to operate a national voluntary assessment system to certify teachers meeting the standards, and improve education in the United States by strengthening teaching as a profession (NBPTS, 2000, 2001a, 2001b).

The certification is achieved upon successful completion of a voluntary assessment program designed to recognize effective and accomplished teachers who meet high standards based on what teachers should know and be able to do. This is determined by an examination of their practice based on video presentations, a portfolio submission, and proof of content knowledge as evidenced by passing a written test. National Board certification is available nationwide for most pre K–12 teachers. This particular advanced level of teacher certification has perpetuated the perception that increased knowledge and skill in teaching, recognized by this type of certification, may create a higher trained, better equipped workforce to meet the needs of the students, which may ultimately increase student achievement and academic performance (Rouse, 2007).

To encourage teachers to embark on this rigorous process, most states provide financial aid assistance to teachers for the enrollment fee. In the state where the study was conducted, teachers are initially reimbursed for \$1,250 (half) of the assessment fee of \$2,565. The state reimburses the other half of the payment once the candidate has confirmed passing the National Board certification. In addition, teachers also receive a 5 percent salary increase. Currently there are 487 teachers that are National Board certification in the state; 173 teachers are National Board certified within school district where the study was conducted (NBPTS NV, 2010)

Several studies (Bond, Jaeger, Smith, & Hattie, 2000; Goldhaber & Anthony 2004; Vandevort, Amrein-Beardsley, and Berliner 2004) have investigated the effectiveness of National Board certification as an indicator of teacher quality and its ability to impact student learning as measured by standardized testing. Vandevort et al. (2004) studied the academic performance of students in elementary classrooms of 35 National Board certification and their non-Board Certified colleagues in 14 Arizona school districts. The results from the Stanford Achievement Tests in reading, math, and language arts in grades 3-6 were compared over four years. The overall results of this study revealed that students in classrooms with National Board certification surpassed students in classrooms of non-Board Certified teachers in nearly 75 percent of the content areas. Likewise, in a study that examined the association between student gains in mathematics in the ninth and tenth grades, Cavalluzzo (2004) concluded that there is “robust evidence that NBCT is an effective indicator of teacher quality” (p. 1). School systems wanting to target pay increases to teachers of the highest quality can use board certification for this purpose. Researchers consistently found that students of NBCTs had higher student achievement scores on standardized tests (Bond, Jaeger, Smith, & Hattie, 2000; Goldhaber & Anthony 2004).

Teaching Experience

A teacher’s work experience also affected his or her overall job satisfaction level. In a study of vocational teachers in Louisiana, Grady (1985) reported a significant difference between job satisfaction scores with varying amounts of teaching experience. As the number of years of teaching experience increased, job satisfaction also increased. Berns (1989) found that as a teacher’s total years of experience increased, so did his or her overall job satisfaction level. A teacher with a master’s degree was more satisfied with his or her teaching position than a teacher

with only a bachelor's degree. Nestor and Leary (2000) examined the relationship between tenure and non-tenure track status of Extension faculty and job satisfaction. Results showed staffs with 21+ years at the institution were more satisfied than faculty with 1-5 and 6-9 years of experience. Bishay's (1996) study of teachers within various teaching subjects showed similar results of higher job satisfaction among more experienced teachers.

A study by Castillo, Conklin, and Cano (1999) investigated specific factors associated with job satisfaction and dissatisfaction among secondary teachers of agriculture and found that teacher's age, years in current position, total years teaching, and degree status were not significantly related to overall job satisfaction. The targeted population in a study from Heller, Clay, and Perkins (1993) consisted of a random sample of elementary, middle, junior high, and high schools teachers from a large school system in North Carolina with four or more years of experience. Heller et al. (1993) discovered that approximately 50% of the public school teachers sampled in the study were dissatisfied with their jobs. Specifically, teachers were least satisfied with finances related to teaching and most satisfied with their coworkers. Teachers' years of experience in education was not found to be significantly related to their job satisfaction. Due to the inconsistent results regarding work experience and job satisfaction among educators, more studies involving this factor is warranted.

Impact of Job Satisfaction

Antidotal reports indicate that satisfied employees lead to improved job performance, but research findings have failed to support a direct relationship between these two variables (Spector, 1985). The relationship has only been weakly manifested by Iaffaldano and Muchinsky (1985), while evidence of a relationship was concluded by Brayfield and Crockett (1955). In contrast, a meta-analysis conducted by Petty, McGee, and Cevender (1984) demonstrated a

positive relationship. In addition, there has been research that has suggested that while job satisfaction by itself may not guarantee high productivity; it was a necessary requirement for sustaining high productivity over time (Katzell & Yakelvoich, 1975). Moreover, “how employees perceive their work, as defined by issues such as management, practices, job structure, career development, and recognition programs, directly affects their feelings of satisfaction and increases commitment” (Saratoga Institute, 1992, p. 16).

Researchers have reported a significant correlation between job satisfaction and physical and psychosomatic symptoms such as headaches and upset stomachs (Lee, Asford, & Bobko, 1990; Begley & Czjka, 1993) and with emotional states of anxiety and depression (Spector, 1997). Additionally, an additional positive outcome of job satisfaction reported was life satisfaction. Life satisfaction refers to the relationship between work and non-work domains, and their spillover effect. That is, feelings in one’s work life affect feelings in other areas of one’s life. Spillover hypothesis suggests that a person who is satisfied on the job is likely to be satisfied with life in general (Weaver, 1978). Although job satisfaction is central in one’s life, it is possible that the role of work causes life satisfaction.

A relatively new concept in performance analysis that has appeared in the past two decades ago in the field of organizational behavior is Organizational Citizenship Behavior (OCB). It represents a very old human conduct of voluntary action and mutual aid with no request for pay or formal rewards in return. OCB is a behavior that goes beyond the responsibilities of the job. It consists of traits such as being punctual, being helpful, making suggestions for improvements, and not wasting time at work (Schnake, 1991). The concept was first introduced in the mid-1980s by Dennis Organ and has since expanded rapidly. According to Organ (1988), the definition of OCB is "individual behavior that is discretionary, not directly or

explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization” (p.4). It is a reflective of the understanding of employees from the scope of their job responsibilities. Altogether, Organ (1988) identified five categories of OCB: (1) *altruism* - the helping of an individual coworker on a task; (2) *courtesy* - alerting others in the organization about changes that may affect their work; (3) *conscientiousness* - carrying out one’s duties beyond the minimum requirements; (4) *sportsmanship* - refraining from complaining about trivial matters; and (5) *civic virtue* - participating in the governance of the organization.

Employee job satisfaction has not been found to increase employee performance “however, it could be that job satisfaction leads to OCB rather than required performance” (Spector, 1997, p. 57). Job satisfaction and OCB have been found to have a significant and positive relationship in a number of studies (Farh, Podsakoff & Organ, 1990; Becker & Billings, 1993; Munene, 1995). A statistically significant positive correlation was found between organizational citizenship behavior and job satisfaction (Feather & Rauter, 2004; Organ & Ryan, 1995). Organ (1988) suggested that high levels of OCB should lead to a more efficient organization and help bring new resources into the organization.

Intrinsic job satisfaction mediates the relationship between OCB (behaviors that increase organizational effectiveness) and job significance (the extent of the significant impact of the job on others). It also mediates the relationship between OCB and job variety (the extent to which an employee can use different skills in doing his/her work) (Chiu & Chen, 2005). Extrinsic job satisfaction is the degree of satisfaction an employee has with work conditions, policies, and praise, which are unrelated to the job itself. Extrinsic job satisfaction does not mediate the relationship between job characteristics and OCB. This indicates that skills and critical positions

trigger employees to seek intrinsic job satisfaction that, in turn, causes them to display organizational characteristic behavior (Chiu & Chen, 2005).

A growing body of research is also being conducted to investigate employees' work and motives and how they explain satisfaction with the job (Judge & Watanabe, 1994; Anderson & Martin, 1995). The complex study of job satisfaction was set in motion with the Hawthorne studies of the 1920's and 1930's to better understand the effects of working conditions on worker productivity (Mayo, 1946). The study called for the humanization of the work and is credited with interest in job satisfaction and the desire to have satisfied employees (Bruce & Blackburn, 1992).

A fundamental linkage is made between the Hawthorne studies, which focused on increasing productivity and the emphasis on organizational culture today. The "Hawthorne effect" is one of the more widely-known principles of the social sciences. The original Hawthorne effect was discovered in a series of experiments at the Hawthorne plant of the Western Electric Company (Roethlisberger & Dickson, 1939). It is identified as a tendency of human beings to be influenced by special attention from others. (Landsberger, 1958, p. 13). The definition of the Hawthorne effect as stated by Rush (1971) defined it as "What is popularly called the 'Hawthorne effect' denotes higher productivity among workers because they are being noticed" (p. 60). Similarly, Boettinger (1975) stated the following concerning the Hawthorne effect:

The mere observation of human beings, the showing of management concern, the process of experiment, and the interaction of the people with those conducting the experiment—all these themselves were a stimulus to progress (measured in production efficiency which swamped the purity of classic hypothesis testing (p. 264).

Zhang et al. (2004) suggested that certain motivational factors contribute to job satisfaction such as “achievement, recognition, work itself, responsibility, advancement, and professional growth” (p. 187). Likewise, Kreitner and Kinicki (2006) summarized that there were positive correlations between job satisfaction and an employees’ mental well-being, commitment to the job, and motivational factors. King, Lahiff and Hatfield. (1988) reported that there was a “consistently clear and positive pattern of relationships between an employee’s perceptions of their job duties and responsibilities and his or her job satisfaction” (p. 36). Choy (1993) found that teachers who were not satisfied were less motivated to do their best work while those who were highly satisfied were less likely to change schools or to leave the teaching profession.

Impact of Job Dissatisfaction

Beyond the understood benefits of job satisfaction, there have been findings suggesting that job dissatisfaction has negative consequences. Four negative outcomes have been identified in the literature on job satisfaction. The first negative outcome of job dissatisfaction has been found to influence physical and emotional health, which may lead to higher tardiness, absenteeism, and turnover. Job satisfaction is a source related to attendance behavior, in fact, some researchers view absences and turnover as escapes from a dissatisfying job (Mirta, Jenkins, & Gupta, 1992). Job satisfaction has been associated with higher levels of stress, attrition, teacher absenteeism and illness (Billingsley, 1995). Lack of job satisfaction leads to decreased job retention. Employee absences can reduce organizational effectiveness as well as efficiency by increased labor cost. Some researchers have found a very small correlation between job satisfaction and absence (Hammer & Landay, 1981), other have found a significant

correlation (Tharenou, 1993; Tziner & Vardi, 1984) and some maintain that absence was a complex variable that may have multiple causes (Kohler & Mathieu, 1993).

Commitment and absenteeism are often included in factors studied about job satisfaction. For instance, job commitment and job involvement are related to job satisfaction (Jewell & Siegall, 1990). Shann (1998) maintained that job satisfaction is a predictor of teachers' commitment, retention, and contributions. Furthermore, low satisfaction and low commitment were related to increased rates of employee absenteeism (Gray, 1989). Wagner and Hollenbeck (1998) determined that dissatisfied employees were more likely to participate in behaviors such as aggression, sabotage and theft. Hackett and Guion (1985) also found that job satisfaction was related to absenteeism.

With the continuous demands being placed on school districts and teachers, school leaders are facing a major challenge to hire and retain quality teachers (Stockard & Lehman, 2004). Public schools continue to experience a teacher shortage as the number of teachers leaving the profession outnumbers the number of teachers entering. Elementary and secondary public schools have been plagued with a shortage of teachers for the past two decades (Ingersoll, 2001). The teacher shortage and the inability of public schools to retain qualified elementary and secondary teachers in the classroom continue to be the foremost problem in education (Ingersoll, 2003; Williams, 2007). Greiner and Smith (2006) posited, "Only recently have researchers discovered retention is more of a problem than recruitment" (p. 653). As people abandon the teaching profession, shortages increase (Mooney, 1989). Teachers who are dissatisfied with their jobs tend to retire early or leave the profession altogether (Monahan & Greene, 1987). Teachers today are facing many mandated changes in education which has been demonstrated to have an overall effect on their level of job satisfaction (Kniveton, 1991).

In a study exploring the influences on the satisfaction and retention of first year teachers, Stokard and Lehman (2004) found that job satisfaction was the variable with the most important influence on job retention. Among beginning teachers, teacher attrition statistics revealed that one-third to one-half leave within their first five years (Hare, Heap, & Raack, 2001; Ingersoll, 2003; Murnane et al., 1991) due to the increase in responsibilities and demands placed upon them (Billingsley & Cross, 1992), as well as a lack of support both financially (Murnane et al., 1991) and morally (Bobbitt et al., 1991; Cohn, 1992). These additional job-related demands and responsibilities include increasing numbers of students with limited English proficiency, inclusion of students with special needs in the regular classroom, low level of student achievement, and increasing class sizes, coupled with the external accountability demands.

Hare, Heap and Raack (2001) reported that more than one quarter of the teachers who left the profession described their reason as job dissatisfaction. Several researchers (Brown, 2005; Carroll & Fulton, 2004; McElroy, 2005; William, 2007) maintained that teacher retention was the solution to the teacher shortage crisis, and asserted retaining teachers would not only provide monetary savings, but it would also contribute to saving the educational future of children. However, high teacher attrition rates have perpetuated the teacher shortage crisis, and many school leaders remain unsuccessful at developing effective strategies to improve teacher retention (Dove, 2004).

The second negative outcome related to dissatisfaction on the job is turnover behavior. Research supports a correlation between job dissatisfaction and turnover (Zautura, Reynolds, & Elben, 1986; McNeely & Meglino, 1994). There are factors both inside and outside an organization which cause an individual to leave. Push factors (dissatisfaction) and pull factors (job market) both affect employee turnover (Zautura, Reynolds, & Elben, 1986). Considering

push and pull factors furthers an understanding with regard to why workers who dislike their jobs stay and why workers who enjoy their jobs. Spector (1997) and Judge (1992) hypothesized that an individual's affective disposition interacts with job satisfaction in influencing decisions to terminate employment. Consistent with predictions, the highest turnover rates were for those individuals who had favorable disposition in general but disliked their jobs. Whereas the lowest turnover rates were for those individuals with favorable dispositions and high satisfaction; thus indicating how characteristics of the individual interact with characteristics of the organization in determining turnover behavior (Weitz, 1952; Judge, 1992; Simmons, Cochran, & Blount, 1997). Increased rates of turnover were related to low rates of job satisfaction (Gray, 1989; Griffeth, Hom, & Gaertner, 2000). Shann (1998) also confirmed in his findings that when teachers were satisfied with their jobs, there is less attrition and greater improvements in job performance.

Within the field of education, the effects of job turnover can include: increased cost to recruit, the selection process and training of novice teachers; demoralization of existing teachers; decreased social relationships among teachers; negative public relations disruption of day-to-day activities; and decreased organizational opportunities to pursue growth strategies (Mowday, 1984). Longevity in a job is another contributing factor associated with job satisfaction. Locke, Fitzpatrick, and White (1983) claimed, "Studies have shown that, typically, job satisfaction increases linearly or curvilinear with age and/or job tenure" (p. 346). This suggests that employees who are on the job longer are more likely to be satisfied with their jobs.

A third negative outcome related to being dissatisfied at work is burnout (Arches, 1991). Job satisfaction is an attitudinal response whereas burnout is more an emotional response to the job (Whitehead, 1989). Ingersoll (2003) reported that most cited reasons for leaving the field of

education were inadequate support from leaders, low salaries, student discipline issues, and leaders giving teachers limited input into the decision-making process,

The final negative outcome identified in the literature related to job satisfaction is counterproductive behavior, that is, acts committed by an employee that either intentionally or unintentionally hurt the organization. Wagner and Hollenbek (1998) determined that dissatisfied employees were more likely to participate in behaviors such as aggression against coworkers and employers, sabotage, and theft. Fox and Spector (2005) stated that job satisfaction has been shown to relate to counterproductive work behavior. An important factor involved in these behaviors was control at work; individuals who believed that they had control at work were less likely to commit these acts compared to those individuals who believed they had no control (Spector, 1997). Organizational constraints were particularly important in the literature on negative outcomes because they were closely tied to frustration at work (Spector, 1997). Unfulfilled needs resulted in counterproductive work behaviors and high degrees of dissatisfaction with their job (Rubin & Rubin, 1992). When an employee is not satisfied, other than leaving the organization, he or she may create other problems. Fox and Spector (2005) discussed counterproductive work behavior as purposeful acts that harm organizations or people in the organization. These acts include verbal and physical aggression, theft, absence, turnover, tardiness, doing the job in an incorrect manner on purpose, and sabotage. In essence, continued job dissatisfaction can lower a worker's commitment to the organization, which may precipitate withdrawal behaviors. Efforts invested in job satisfaction can also partially mediate the relationship of psychosocial work factors to deviant work behaviors. Therefore, maintaining and enhancing job satisfaction is important in order to establish quality worker, workplace, and work itself.

Summary

The study of job satisfaction is complicated at best. Many theorists and researchers have attempted to explain the factors that affect job satisfaction, some of which are related to the job itself and the working situation. This study was designed to contribute to the literature about this complex topic.

CHAPTER III

Methodology

Introduction

Chapter III contains a description of the methods used to collect and analyze the data for this study. The chapter provides a restatement of the purpose of the study and the research questions. The research design and description of the procedures used to complete the study are described. In addition, the chapter identifies the population and how sampling was conducted from this population. It includes an explanation of the instrumentation, validity and reliability, data collection procedures, and data analysis procedures. Finally, limitations of this methodology are described.

Statement of the Problem

The purpose of this study was to examine the perceived job satisfaction among high school teachers employed in an urban school district located in a state in the western United States. This study sought to identify the levels and the relevant factors of job satisfaction for high school teachers. The following null hypotheses were used in the development and design of this study:

Null Hypothesis - There is no difference among groups established by various demographic variables as measured by the intrinsic and extrinsic means of the Job Satisfaction Survey.

1. Null Hypothesis 1.1 – There is no difference between *Gender* groups for the intrinsic and extrinsic means of job satisfaction.
2. Null Hypothesis 1.2 – There is no difference among *Age Group* groups for the intrinsic and extrinsic means of job satisfaction.

3. Null Hypothesis 1.3 – There is no difference between *Ethnicity* groups for the intrinsic and extrinsic means of job satisfaction.
4. Null Hypothesis 1.4 – There is no difference between *Marital Status* groups for the intrinsic and extrinsic means of job satisfaction.
5. Null Hypothesis 1.5 – There is no difference among *Highest Level of Education* groups for the intrinsic and extrinsic means of job satisfaction.
6. Null Hypothesis 1.6 – There is no difference between *National Board Certified* groups for the intrinsic and extrinsic means of job satisfaction.
7. Null Hypothesis 1.7 – There is no difference between *Subject Taught* groups for the intrinsic and extrinsic means of job satisfaction.
8. Null Hypothesis 1.8 – There is no difference among *Salary* groups for the intrinsic and extrinsic means of job satisfaction.
9. Null Hypothesis 1.9 – There is no difference among *Total Years of Teaching Experience* groups for the intrinsic and extrinsic means of job satisfaction.
10. Null Hypothesis 1.10 – There is no difference among *Number of Schools Taught* groups for the intrinsic and extrinsic means of job satisfaction.

Research Design

The research used a quantitative study design, using multiple analysis of variance (MANOVA) so that “the effect of the independent variable(s) [could] be examined after controlling for the effect of other variables that are predicted to be related to the dependent variable” (Bates, 2005, p. 135). In this instance, this meant testing for any effects of demographic data on the dependent variables of job satisfaction. Ten ordinal dependent variables (overall job satisfaction, pay, promotion, supervision, fringe benefits, operating conditions, contingent

rewards, coworkers, nature of work, and communication) and ten control variables consisting of demographic data (gender, age group, ethnicity, marital status, highest level of education, national board certification, subject taught, salary, years of experience, and the number of schools the individual has worked in the education profession) which included nominal and ordinal levels of measurement served as the means of testing in order “to discover the common factors that drive the interrelationships among the observable variables” (Yang, 2005, p. 184).

Population

This study focused on high school teachers who were employed in urban high schools in a school district located in a western state in the United States. The school district is the second largest in the state and consisted of 63 elementary schools, a special education school, 14 middle schools, 13 comprehensive high schools, and 8 public charter schools. As of the 2009-2010 school year, the school district made Adequate Yearly Progress (AYP) under AYP designation adequate.

Of the 13 high schools in the district, ten were located in the metropolitan area. The two high schools located in rural parts of the district were excluded from the study because its location away from the urban setting where this study was conducted. Urban and rural schools also differed in size of students, size of staff and cost per pupil, which was another factor why they were excluded. The remaining high school, located in the metropolitan area was excluded because it was a charter school. Charter schools were considered inappropriate for the study because they are nontraditional high schools that have a specific focus on curriculum and instruction such as in performing arts. The size of student and staff population were also taken into consideration when excluding them from the study.

The principal at all ten urban schools were contacted to request permission to conduct the study at their schools. Seven principals agreed. The high schools included in the study represented a range of socioeconomic conditions. Three schools were located in economically impoverished areas of the city; one of these schools included an International Baccalaureate program. The remaining four high schools were more socioeconomically mixed. The characteristics of the schools are found in Appendix A.

Appendix B shows the demographic profile of students for special populations. Special populations are broken down according by Individual Education Plan (IEP), Limited English Proficiency (LEP), and Free and Reduced Lunch (FRL). IEPs are legally binding documents that spell out exactly what special education services a student will receive and why. An IEP is designed to meet the unique educational needs of one child, who may have a disability, as defined by federal regulations (Etscheidt, 2006). It is intended to help students reach their educational goals and is meant to ensure that students receive the most “normal” or “least restrictive environment” placement in school. Another category of Special Population is LEP. A student with LEP is an individual who is unable to communicate effectively in English because their primary language is not English. These students often times are enrolled in English as a second language (ESL) programs to ensure that they are being educated adequately and effectively. FRL is a federally assisted meal program that provides nutritionally balanced, low-cost or free lunches to students all across the country. According to the USDA, children from families with incomes at or below 130 percent of the poverty level are eligible for free meals. Those with incomes between 130 percent and 185 percent of the poverty level are eligible for reduced-price meals. For the 2010-11 school year, that range for a family of four was \$28,665 to \$40,793. Children from families with incomes over 185 percent of poverty pay a full

price, though their meals are still subsidized to some extent (National School Lunch Program, 2012). The last category of Special Population is Migrant. These include students of migrant and seasonal farm workers whose parents typically do not have access to transportation, work long hours (10 to 12 hours a day), and have chronic health problems. Appendix C documents the ethnic breakdown of all students within the seven high schools.

School A consisted of 63 teachers and 4 administrators; School B consisted of 61 teachers and 8 administrators; School C consisted of 96 teachers and 7 administrators; School D consisted of 84 teachers and 6 administrators; School E consisted of 102 teachers and 7 administrators; School F consisted of 64 teachers and 7 administrators; and School G consisted of 62 teachers and 5 administrators. Figure 6 demonstrates the comparison of teachers to administrators within each of the seven high schools.

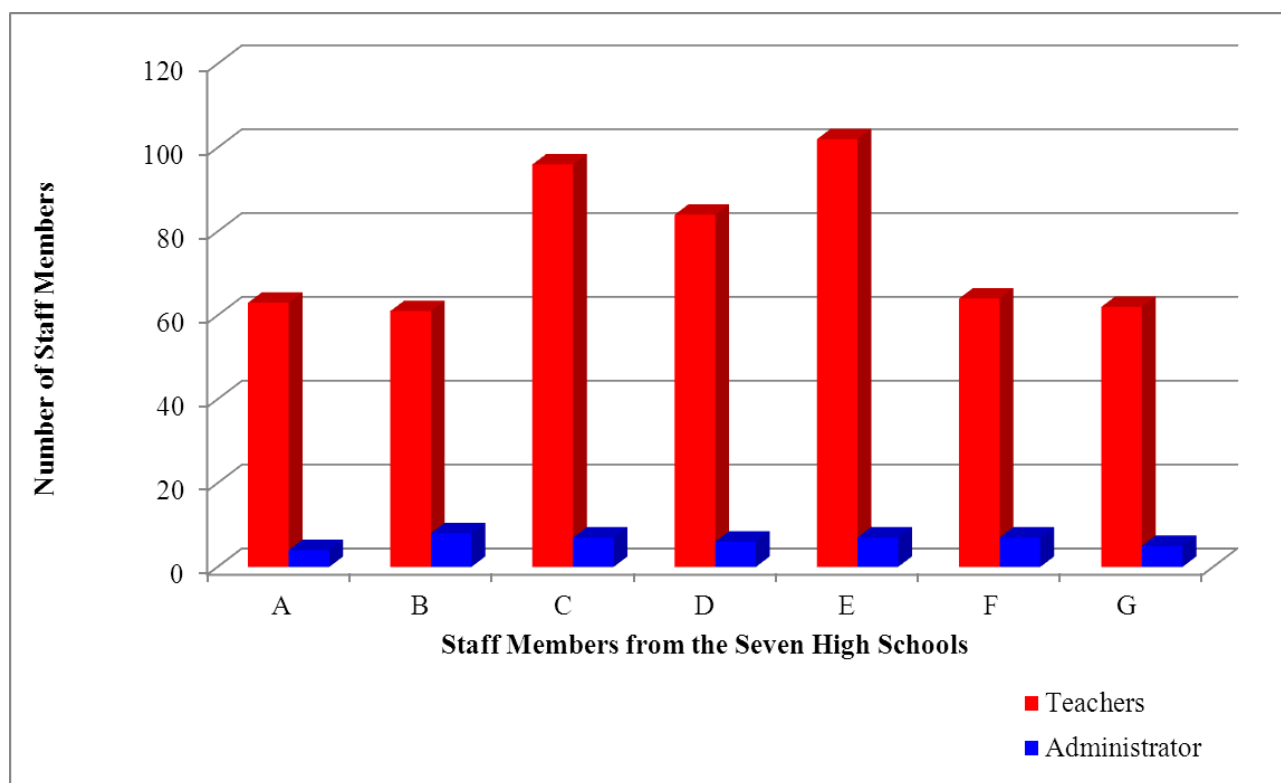


Figure 6. Comparison of number of teachers to administrators

Instrumentation

The survey used in this study consisted of two parts. The first part contained questions pertaining to the personal demographics about the respondent (see Appendix D). Specifically, the survey requested demographic information through 10 questions, including gender, age group, ethnicity, marital status, highest level of education, national board certification, subject taught, salary, years of experience, and the number of schools the individual had worked in his or her education profession.

The second part of the survey measured job satisfaction. Specifically, the JSS, found in Appendix E, was used to measure job satisfaction of high school teachers. The instrument was originally developed to measure job satisfaction for human service organization but is now used in both private and public sectors (Spector, 1997). The primary data used for composing the JSS were collected by Paul Spector from 3,148 respondents who constituted 19 separate samples.

The JSS assesses the level of job satisfaction through the nine subscales (pay, promotion, supervision, fringe benefits, operating conditions, contingent rewards, coworkers, nature of work, and communication) that relate to employee job satisfaction and strongly examines perceptual and attitudinal variables. The scale gives a score for each subscale as well as for the overall level of all subscales, equaling the total score of all sub-scores from each of the 10 subscales (Spector, 1997).

The JSS was used in this study for several reasons. First, the scale has been used a sufficient number of times to provide the norms, which are the means on each subscale for individuals within a given population. Comparisons with norms can help with the interpretation of results from a given organization. Table 4 shows the mean subscale and total job satisfaction scores across many employees and many samples. The table is based on 8,113 respondents from

52 samples. Most samples represent a single organization, although several represent two or more organizations.

Table 4

Total Norms for the Job Satisfaction Survey

Subscale	Item #	Mean	Standard Deviation Across Samples
Pay	1, 10, 19, 28	11.8	2.6
Promotion	2, 11, 20, 33	12.0	1.9
Supervision	3, 12, 21, 30	19.2	1.5
Fringe benefits	4, 13, 22, 29	14.2	2.2
Operating conditions	6, 15, 24, 31	13.5	2.2
Contingent rewards	5, 14, 23, 32	13.7	2.0
Coworkers	7, 16, 25, 34	18.3	1.1
Nature of work	8, 17, 27, 35	19.2	1.3
Communication	9, 18, 26, 36	14.4	1.8
Total		136.5	12.1

Note. Norm based on 8,113 individuals from 52 samples. From *Job Satisfaction: Application, Assessment, Causes, and Consequences* (p. 12) by P.E. Spector, 1997, Thousand Oaks, CA: Sage. Copyright Paul E. Spector, 1997.

As of 1997, the JSS had been used in over 115 studies with a total sample size of over 30,000. Table 5 indicates the JSS norms reflective of all the American samples between 1985 and 1997 (Spector, 1997).

Table 5

Job Satisfaction Norms of Total Americans

Facet	Mean	Standard Deviation of Means
Pay	3.03	0.60
Promotion	4.00	0.45
Supervision	4.68	0.45
Benefits	3.60	0.55
Operating procedures	3.40	0.50
Contingent rewards	3.43	0.48
Coworkers	4.48	0.38
Nature of work	4.73	0.45
Communication	3.63	0.50
Total Sample size	3.78	0.32

Note. Number of Samples = 116. Total Sample Size is based on 30,382 individuals, June 22, 2006. . From *Job Satisfaction: Application, Assessment, Causes, and Consequences* (p. 27) by P.E. Spector, 1997, Thousand Oaks, CA: Sage. Copyright Paul E. Spector, 1997.

Second, the scale has been shown to exhibit acceptable levels of reliability (internal consistency reliability and test-retest reliability) and good evidence of construct validity (Spector, 1997). Thus, there is confidence that the scale consistently measures the satisfaction subscales of interest.

The major disadvantages of using the existing JSS scale was that it is limited to only those subscales that Paul Spector included in the instrument. The subscales tend to be general, which makes them applicable to most organizations. However, they do not include more specific areas of satisfaction or dissatisfaction that are issues for certain types of organizations or a particular organization. These could include satisfaction with specific decisions, events, individuals (e.g., students), or policies. For instance, in this study, the instrument did not include statements related to any changes in the leadership at either the district or school level, which may impact job satisfaction.

The JSS was published by Paul Spector in 1985. This instrument is a copyrighted scale. On his JSS web page, Spector has given permission for researchers to use the JSS without payment under two conditions. The first condition for use of the copyrighted survey is that it can be used and modified without fee only for noncommercial educational and research purposes by permission of the author (Spector, 1997). The second condition for free use of the survey is that the researcher agrees to share results with Dr. Spector. With this information, he continues to update the norms and bibliography for this survey instrument. Permission was obtained through email (see Appendix F) and results of this study have been shared with Dr. Spector.

The JSS (Spector, 1997) includes thirty-six statements that test attitudes toward nine different aspects of work. The nine areas or subscales are pay, promotion, supervision, fringe benefits, operating conditions, contingent rewards, coworkers, nature of work, and communication. From the nine subscales of perceived job satisfaction, four measure intrinsic job satisfaction (contingent rewards, coworkers, nature of work, and communication) and the remaining five measure extrinsic job satisfaction (pay, promotion, supervision, fringe benefits, and operating conditions). The intrinsic factors are related to self-esteem/self-respect, personal growth and development, achievement, and expectations. The factors on the JSS that indicate extrinsic job satisfaction characteristics are respect and fair treatment, being informed, amount of supervision by the immediate supervisor, opportunity to participate in the methods, procedures, and goals of the organization. Table 6 lists the nine subscales, along with a brief description of each. The scale contains 36 questions to measure subscales of both intrinsic and extrinsic job satisfaction, as well as total satisfaction.

Table 6

Description of the Nine Subscales

Subscale	Description
1) Pay	Pay and remuneration
2) Promotion	Promotion opportunities
3) Supervision	Immediate supervisor
4) Benefits	Monetary and non-monetary fringe benefits
5) Operating procedures	Operating policies and procedures
6) Contingent rewards	Appreciation, recognition, and rewards for good work
7) Coworkers	People you work with
8) Nature of work	Job tasks themselves
9) Communication	Communication within the organization

Each item is a statement that is either favorable or unfavorable about a particular aspect of the job. The first question, for example, concerns pay, and the second concerns promotion

opportunities. Respondents were asked to circle one of six numbers on a Likert scale that corresponded to their agreement or disagreement about each statement. Each of the nine subscale subscales contain four questions, and a total satisfaction score was computed by combining all of the questions.

Pilot Study

A pilot administration of the survey was conducted in an effort to provide feedback concerning any errors or questions about the JSS instrument and the Demographic Questionnaire. Six participants agreed to participate in the pilot. The participants were employed at a charter high school located in the same school district where the actual survey was later distributed. A response sheet was attached to the survey; suggestions for improving the clarity of instruction and general layout of the instrument were elicited from the pilot study participants. The length of time for completing the survey was also recorded on the response sheet. Results of the pilot study demonstrated the average time for completing the survey was approximately 10 minutes, with extremes ranging from 5 minutes to slightly more than 15 minutes. This information was later used in the request for participation in the actual study. Most of the modifications made to the survey following the pilot study improved the clarity of instructions and some content of the Demographic Questionnaire. The results of the pilot study warranted the collection of a larger sample population and continuation of the full research project.

Dependent and independent variables

The dependent variables in this study were the overall satisfaction and the nine subscales. The subscales (and related survey questions) of job satisfaction are defined as follows:

Pay referred to the economic aspects of the job. Is the individual satisfied with the monetary compensation received for the job?

Question 1) I feel I am being paid a fair amount for the work that I do.

Question 10) Raises are too few and far between.

Question 19) I feel unappreciated by the organization when I think about what they pay me.

Question 28) I feel satisfied with chances for salary increases.

Promotion examined attitudes regarding opportunities for advancement that could be equated with improved status and possible greater pay. Is the individual satisfied that there are opportunities for promotion?

Question 2) There is really too little chance for promotion on my job.

Question 11) Those who do well on the job stand a fair chance being promoted.

Question 20) People get ahead as fast here as they do in places.

Question 33) I am satisfied with my chances for promotion.

Supervision referred to perceived support and interpersonal relationships with one's immediate supervisor. Is the individual satisfied with the supervision received from immediate superior?

Question 3) My supervisor is quite competent in doing his/her job.

Question 12) My supervisor is unfair to me.

Question 21) My supervisor shows too little interest in the feelings of subordinates

Question 30) I like my supervisor.

Fringe benefits referred to the benefits package provided with the position in addition to salary. Is the individual satisfied with the benefits package provided by the district?

Question 4) I am not satisfied with the benefits I receive.

Question 13) I am not satisfied with the benefits I receive.

Question 22) The benefits we receive are as good as most other organizations offer.

Question 29) There are benefits we do not have which we should have.

Contingent rewards involved the perceived recognition for good performance. Is the individual satisfied with the attention, recognition and/or appreciation gained from supervisors or colleagues for good work?

Question 5) When I do a good job, I receive the recognition for it that I should receive.

Question 14) I do not feel that the work I do is appreciated.

Question 23) There are few rewards for those who work here.

Question 32) I don't feel my efforts are rewarded the way they should be.

Operating procedures referred to the rules and procedures involved in the performance of the job. Is the individual satisfied with the paperwork and rules that govern the position?

Question 6) Many of our rules and procedures make doing a good job difficult.

Question 15) My efforts to do a good job are seldom blocked by red tape.

Question 24) I have too much to do at work.

Question 31) I have too much paperwork.

Coworkers examined interpersonal relationships with coworkers and perceived competence of fellow workers. Is the individual satisfied with the people with whom he or she works?

Question 7) I like the people I work with

Question 16) I find I have to work harder at my job than I should because the incompetence of people I work with.

Question 25) I enjoy my coworkers.

Question 34) There is too much bickering and fighting at work.

Nature of work referred to the type of work done on a daily basis and the sense of pride in the accomplishments made each day. Is the individual satisfied with the tasks they must complete each day?

Question 8) I sometimes feel my job is meaningless

Question 17) I like doing the things I do at work.

Question 27) I feel a sense of pride in doing my job.

Question 35) My job is enjoyable.

Communication examined satisfaction with the communication within the organization. Is the individual satisfied that he or she is provided with the information necessary to perform the job?

Question 9) Communication seems good within this organization.

Question 18) The goals of this organization are not clear to me.

Question 26) I often feel that I do not know what is going on with the organization.

Question 36) Work assignments are often not fully explained.

The independent variables in this study included gender, age group, ethnicity, marital status, highest level of education, national board certification, subject taught, salary, years of experience, and the number of schools the individual worked.

JSS Scoring

The JSS consisted of 36 questions. Each question on the survey assessed employee attitudes about the job and aspects of the job. The response format consisted of a 6-point Likert-type scale. Respondents were asked to circle one of six numbers that corresponded to their agreement or disagreement about each statement with one being the lowest and six being the highest score. Response choices for each question were scored as 1=disagree very much,

2=disagree moderately, 3=disagree slightly, 4=agree slightly, 5=agree moderately, 6=agree very much. A neutral position was not an option in this survey.

Each subscale had four related statements. For example, statements 1, 10, 19, and 28 related to pay and approximately half of the statements were worded negatively and the other half worded positively. Table 7 indicates which question was assigned to each subscale and which was reverse scored.

Table 7

Subscale Contents for the Job Satisfaction Survey

Subscale	Question Number
Pay	1, 10r, 19r, 28
Promotion	2r, 11, 20, 33
Supervision	3, 12r, 21r, 30
Fringe benefits	4r, 13, 22, 29r
Operating conditions	6r, 15, 24r, 31r
Contingent rewards	5, 14r, 23r, 32r
Coworkers	7, 16r, 25, 34r
Nature of work	8r, 17, 27, 35
Communication	9, 18r, 26r, 36r

NOTE: Questions followed by “r” were reverse-scored (Spector, 1997) (The Assessment of Job Satisfaction, p. 9). Negatively worded questions are 2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 24, 26, 29, 31, 32, 34, and 36.

For instance, question four was negative, “I am *not* satisfied with the benefits that I receive”, whereas question 22 countered to the positive, “The benefit package we have is equitable.” The grouping and the wording directions are displayed in Appendix G. Respondents who agreed with positively worded questions and disagreed with negatively worded questions had high scores representing satisfaction. People who disagreed with positively worded questions and agreed with negatively worded questions had low scores representing dissatisfaction (Spector, 1997). Negatively worded questions required reverse scoring, as “without question reversals, most respondents will have middle scores because they will tend to

agree with half and disagree with half of the questions, just because they are worded in opposite directions” (Spector, 1997, p. 9).

The survey was scored by assigning a number to each answer where one represented the strongest agreement on positively worded questions. Questions that were worded negatively were given a reverse score. A score of 6 represented the strongest agreement with a negatively worded question, meaning that if the respondent circled 6, for this statement it was considered equivalent to a score of 1 which represented the strongest disagreement on a positively worded question. Likewise, the response “disagree very much” became a 6 rather than a 1, “disagree moderately” became a 5 rather than a 2, “agree moderately” became a 2 rather than a 5, “disagree slightly” was scored 4 rather than 3, “agree slightly” was scored 3 rather 4. By adding the scores for these four statements a number was obtained, which was the score for the subscale of pay. This method allowed sum scores to be combined meaningfully.

Each of the nine subscales produced a separate subscale score by combining responses to its four questions. The total of all questions produced a total job satisfaction score. Because the score for each statement ranged from 1 to 6, the total score for an individual subscale (4 questions) ranged from 4 to 24. Four 1’s totaled 4, with four 6’s totaling 24. When all nine subscales were combined, the total overall satisfaction score ranged from 36 (the sum of 36 ones) being the lowest level of satisfaction to 216 (the sum of 36 sixes) being the highest level of satisfaction. Figure 7 depicts the breakdown of how the JSS instrument was scored.

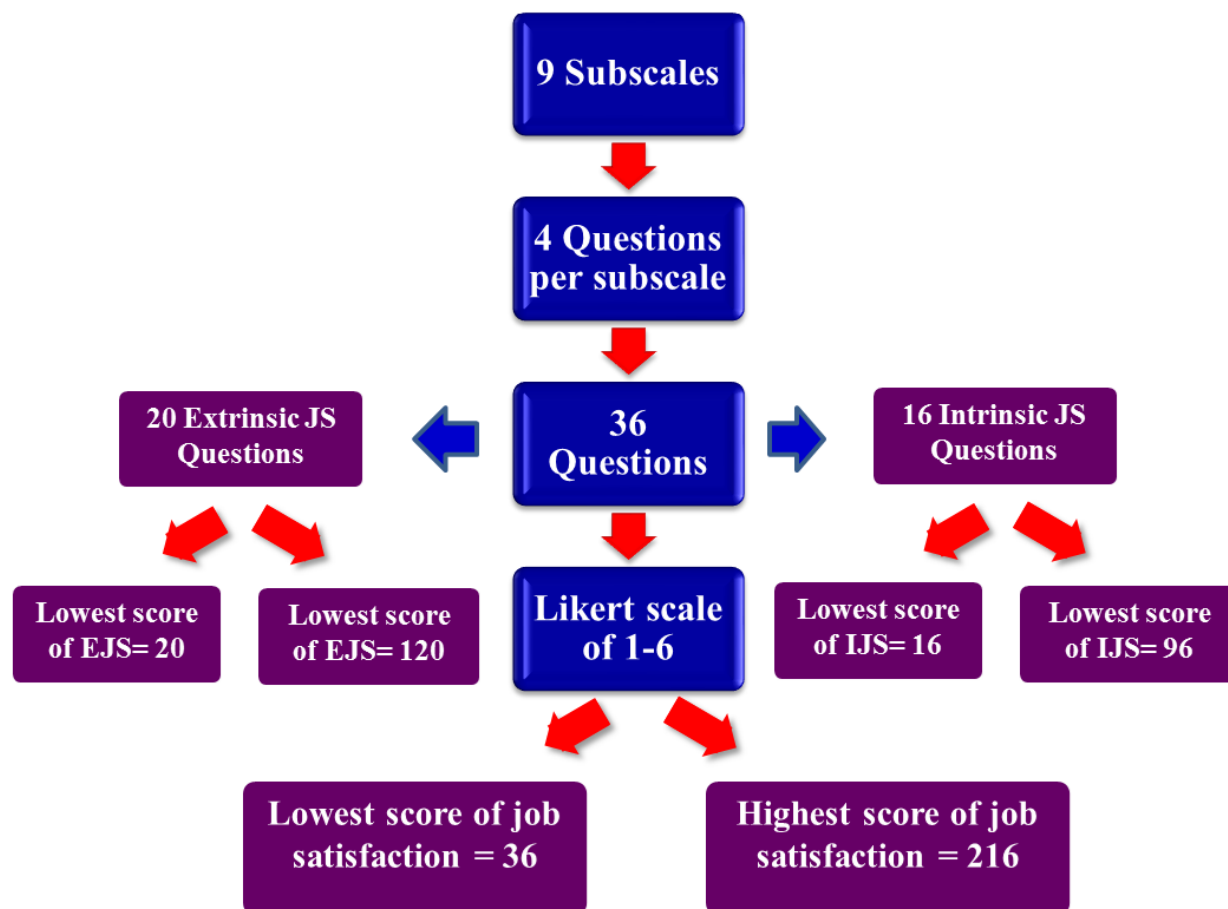


Figure 7. JSS instrument breakdown of subscales & scoring.

Parmer and East (1993) suggested that the JSS provides a quantified assessment of nine identified job dimensions. The lower an individual's score on the JSS, the lower his or her level of job satisfaction.

Internal consistency reliability & test-retest reliability

Two types of reliability estimates are important for evaluating a scale of the JSS instrument: internal consistency reliability and test-retest reliability of the instrument. The internal consistency indicates how well the items of the scale relate to each other and the test-retest states the stability of the scale over time (Spector, 1997).

First, internal consistency reliability estimates refer to how well items of a scale relate to one another. This is achieved when a measure is stable over a variety of conditions whereby the same results can be obtained (Nunnally, 1978). In other words, it essentially answers the question “does the instrument always come up with the same score or number when the true value is the same?” (Spector, 1981, p. 13). The internal consistency of items within a scale is evaluated from the average correlation among all items in the scale with Cronbach’s Alpha (Lester & Bishop, 2000). This can range from 0 (no reliability) to 1 (perfect reliability) (Nunnally, 1978). The internal consistency reliability (coefficient Alpha) of JSS for a sample of 2,870 respondents from 52 samples from public and private sectors, assessed over an 18 months’ time span, are as follows: Pay - .75; Promotion - .73; Supervision - .82; Fringe Benefits - .73; Operating procedures - .62; Contingent rewards - .76; Coworkers - .60; Nature of work - .78; Communication - .71; and Total - .91 (Spector, 2008). The range of coefficient alphas is from .60 (coworkers) to .82 (supervision) among the nine subscales, and the total is .91 (see Table 8). According to Nunnally (1978) the minimum accepted standard of the internal consistency of an instrument is .70. Although the coworkers and operating procedures subscales have internal consistency of slightly lower than the favorable results, all other subscales are over the minimum standard and the internal consistency is very high for the total.

Second, test-retest reliability reflects the consistency of the scale or stability of a test over time. “Test-retest reliability is determined by administering the test and then repeating it on a second occasion. The reliability coefficient is calculated by correlating the scores obtained by the same person on two different administrations” (Groth-Marnat, 2003). Spector (1997) measured the test retest reliability in a period of 18 months for 43 employees. The test-retest reliabilities shown in Table 8, ranged from .37 to .74. The total norms of JSS are presented in Table 9. The

table shows the mean subscale and total job satisfaction scores of 8,113 individuals from 52 samples. The table indicates the number of samples, as well as the total number of respondents.

Table 8

Internal Consistency & Test-Retest Reliability for the Job Satisfaction Survey

Subscale	Internal Consistency (Coefficient Alpha)	Test-Retest Reliability ¹
Pay	0.75	.45
Promotion	0.73	.62
Supervision	0.82	.55
Fringe benefits	0.73	.37
Operating procedures	0.62	.74
Contingent rewards	0.76	.59
Coworkers	0.60	.64
Nature of work	0.78	.54
Communication	0.71	.65
Total	0.91	.71
Sample size	2,870	43

¹Test – retest reliability was assessed over an 18 month time span, sample size was 2870. From *Job Satisfaction: Application, Assessment, Causes, and Consequences* (p. 10) by P.E. Spector, 1997, Thousand Oaks, CA: Sage. Copyright Paul E. Spector, 1997.

Table 9

Total Norms for the Job Satisfaction Survey

Subscale	Mean	Standard Deviation Across Sample ¹
Pay	11.8	2.6
Promotion	12.0	1.9
Supervision	19.2	1.5
Benefits	14.2	2.2
Operating procedures	13.5	2.2
Contingent rewards	13.7	2.0
Coworkers	18.3	1.1
Nature of work	19.2	1.3
Communication	14.4	1.8
Total	136.5	12.1

¹Norms based on 8113 individuals from 52 samples. From *Job Satisfaction: Application, Assessment, Causes, and Consequences* (p. 12) by P.E. Spector, 1997, Thousand Oaks, CA: Sage. Copyright Paul E. Spector, 1997.

Validity

Validity and reliability go hand in hand and are two crucial properties of an instrument (Spector, 1981). Besides determining the reliability of a survey item, the validity of the instrument also must be assessed. Validity is defined as the extent to which any measuring instrument measures what it is intended to measure (Carmines & Zeller, 1979). “Reliability assessments are necessary, but they are not sufficient when examining the psychometric properties of a survey instrument. Once you document that a scale is reliable over time and in alternate forms, you must then make sure that it is reliably measuring the truth” (Fink & Litwin, 1995, p. 33). Therefore, it is also important to measure the accuracy of a survey instrument.

Validity evidence for job satisfaction scales is provided by studies that compared different scales with one another on the same employees. In 1985, Spector conducted research that provided evidence to support the job satisfaction subscales of the JSS. The Job Descriptive Index (JDI), developed by Smith, Kendall and Hulin (1969), which was considered to be the most carefully validated scale of job satisfaction at the time (Cook, 1981), was used for comparison of subscales with the JSS. There are over 100 published studies that used the JDI. According to Fink and Litwin (1995) “Validity is usually expressed as a correlation coefficient, or r value, between two sets of data. Levels of 0.70 or more are generally accepted as representing good validity” (p. 45). Five of the JSS subscales (pay, promotion, supervision, coworkers, and nature of work) were found to correlate well with the corresponding subscales of the JDI. Both scales were administered to a sample of 102 employees and the results of these correlates ranged from 0.61 for coworkers to 0.80 for supervisors (Spector, 1985, 1997).

Table 10 summarizes the intercorrelations between the JSS and JDI subscales. The multitrait-multimethod matrix (MTMM) is located at the top with the correlations between the

five common subscales and additional JSS subscales at the bottom. As can be seen in the table, the validity correlations between equivalent subscales from both instruments (underlined) were significantly larger than zero and of reasonable magnitude, .61 to .80. These values were all higher than correlations between non-corresponding subscales across instruments, shown in the hetero-trait, hetero-method triangles. The MTMM analysis supported the construct validity (Spector, 1985).

Table 10

Multitrait-Multimethod Matrix for Job Descriptive Index and Job Satisfaction Survey Subscales

Subscale	1	2	3	4	5	6	7	8	9	10
Job Descriptive Index										
1. Work	-									
2. Pay	<u>.27</u>	-								
3. Promotion	<u>.47</u>	<u>.25</u>	-							
4. Supervision	<u>.31</u>	<u>.25</u>	<u>.31</u>	-						
5. Coworkers	<u>.37</u>	<u>.30</u>	<u>.37</u>	<u>.28</u>	-					
Job Satisfaction Survey										
6. Work	<u>.66</u>	<u>.24</u>	<u>.32</u>	<u>.24</u>	<u>.23</u>	-				
7. Pay	<u>.33</u>	<u>.62</u>	<u>.51</u>	<u>.34</u>	<u>.30</u>	<u>.29</u>	-			
8. Promotion	<u>.34</u>	<u>.31</u>	<u>.77</u>	<u>.27</u>	<u>.34</u>	<u>.20</u>	<u>.61</u>	-		
9. Supervision	<u>.25</u>	<u>.27</u>	<u>.26</u>	<u>.80</u>	<u>.24</u>	<u>.22</u>	<u>.34</u>	<u>.28</u>	-	
10. Coworkers	<u>.32</u>	<u>.18</u>	<u>.30</u>	<u>.26</u>	<u>.61</u>	<u>.25</u>	<u>.20</u>	<u>.25</u>	<u>.30</u>	-
Benefits	.28	.29	.35	.07	.17	.21	.49	.46	.01	.19
Operating procedures	.07	-.08	.14	-.14	.05	.00	.17	.17	-.22	.15
Contingent rewards	.34	.37	.57	.45	.43	.28	.58	.58	.46	.47
Communication	.40	.20	.50	.38	.45	.37	.40	.40	.37	.55

Note. $N = 102$, $r > .19$ for $p < .05$. From "Measurement of Human Service Staff Satisfaction: Development of the Job Satisfaction Survey" by P. E. Spector, 1985, *American Journal of Community Psychology*, 13, p. 701. Copyright 1985 by the Plenum Publishing Corporation.

Additionally, scales of the JSS have also been demonstrated to have a high degree of validity when compared to other job satisfaction scales (Spector, 1997). These include job characteristics as assessed with the Job Diagnostic Survey (JDS) (Hackman & Oldman, 1975) in age, organization level, absence, organizational commitment, leadership practices, intention to

quit the job, and turnover (Spector, 1985). These findings establish a degree of credible validity and reliability for the JSS.

Data Collection Procedures

The JSS was administered at seven high schools in a western state in the United States. Prior to administering the survey, permission was granted from the University of Nevada, Reno Institutional Review Board (IRB) to conduct research with human subjects (see Appendix H). The same permission was obtained from the Office of Accountability and Performance of the school district where the study was conducted (see Appendix I). In advance of distributing the survey, an introductory email was sent to principals of all ten of the high schools considered to be eligible for inclusion in the study to explain the purpose and the significance of the study (see Appendix J). Seven principals responded. Following the second contact with the three non-responding principals, requests for inclusion of their schools ceased, as stipulated in the IRB approval.

The following week, a formal invitation was sent out to principals who agreed to have the study conducted at their schools to provide written permission to conduct the survey (see Appendix K). Each principal was contacted individually to arrange for the administration of the survey during regularly scheduled, mandatory professional development, which occurred in the district each Wednesday.

Two individuals were designated to distribute the surveys at each of the seven sites and were included in the IRB protocol as members of the research team. This allowed some surveys to be distributed simultaneously at different schools to avoid extensive interruptions of time within the six week timeframe. Both individuals were certified through the Collaborative Institutional Training Initiative (CITI) program in the protection of human research subjects for

social/behavioral research. Figure 8 includes the categorization where the surveys were distributed and by which individual. At three of the seven schools, surveys were administered during whole staff meetings where all teachers were in the same area. In the remaining four high schools, surveys were administered during their department or Critical Friends Groups (CFGs) where teachers were dispersed into small groups. The surveys were distributed at either the beginning or end of each regularly scheduled professional development meeting. In all schools, principals and personnel who held any administrative roles were asked to leave the room in an effort to protect the participants from coercion.

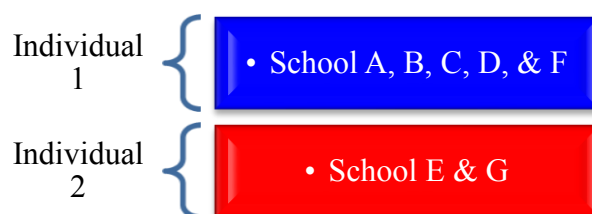


Figure 8. Breakdown of seven schools and the two individuals that distributed the surveys.

Individuals who distributed the survey read instructions from a script (see Appendix L). Writing utensils were provided. The participants were reminded that their participation in the research was completely voluntary and confidential. Participants were asked to not reveal their identity or write their name on the survey. The JSS and Demographic Questionnaire took approximately 20 minutes to complete. Surveys were collected from all participants and sealed in manila envelopes. They were numerically coded in order to keep a record of participants while preserving the confidentiality of all participants. All data collected was kept confidential with regard to the names of the schools and individuals participating in the research. The data collection procedure was conducted between late November, 2011 and early January, 2012.

Data Analysis

Multivariate analysis of variance (MANOVA) is the statistical technique used for comparison of groups with two or more dependent variables (DVs). The MANOVA is considered the multivariate extension of analysis of variance (ANOVA) in which there are multiple, continuous dependent variables (Tabachnick & Fidell, 2007). Similar to ANOVA, MANOVA is designed to test for significance of group differences. The only substantial difference between the two procedures is that MANOVA can include several dependent variables; whereas, ANOVA is appropriate for only one DV (Aron & Aron, 1999).

There are several advantages to using MANOVA over ANOVA. First, MANOVA enables the study of several dependent variables holistically. Second, MANOVA establishes the probability of Type I errors, which increase if multiple ANOVA's are conducted independently. Additionally, it can reveal differences not discovered by ANOVA tests through post-hoc analysis.

Although there are several statistical reasons for preferring a multivariate analysis over a univariate one (Stevens, 1992), there are several cautions as well. First, it is a substantially more complicated design than ANOVA; therefore, there can be some ambiguity about the relationships between the independent variable and the various dependent variables (Tabachnick & Fidell, 2007). Second, the power of the multivariate tests generally declines as the number of dependent variables increases (DasGupta & Perlman, 1973). One degree of freedom is lost for each dependent variable that is added (French, Macedo, Poulsen, Waterson, & Yu, n.d.). Moreover, the dependent variables from the study should be related conceptually, and they should be correlated with one another at a low to moderate level. If they are too highly correlated, there is a risk of multicollinearity (Leech, Barrett, & Morgan, 2008). If they are

uncorrelated, there is usually no reason to analyze them together. Under these circumstances, the use of a single ANOVA test would be preferable.

For this study, the data from the JSS instrument was analyzed as overall job satisfaction (all nine subscales), as well as grouped into two subscales, an extrinsic subscale and an intrinsic subscale. The extrinsic subscale included the total computed value of pay, promotional opportunities, supervision, fringe benefits, and operating conditions. The intrinsic subscales included the total computed value of contingent rewards, coworkers, nature of work, and communication. As noted, the JSS questions were written both with a positive position and a negative position. This means that half of the 36 questions were reversed scored. A respondent who strongly agreed (agree very much) with a positive statement was coded a “six.” If a respondent strongly disagreed (disagree very much) with the same statement, a value of “one” was assigned. On the other hand for negative statements, strongly agree was assigned a “one” while strongly disagree was coded a “six.” See Appendix C to determine which questions were reverse scored and the questions that pertain to a particular subscale. Table 11 provides a summary of all the possible scores of overall extrinsic and intrinsic job satisfaction. The overall job satisfaction score was a combination of extrinsic and intrinsic job satisfaction scores, which ranged from 36 to 216.

Table 11

Possible Scores of Overall Extrinsic and Intrinsic Job Satisfaction

	Subscales	Score Range	Overall Extrinsic & Intrinsic Job Satisfaction
EXTRINSIC SUBSCALES	Pay	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	Lowest Possible Extrinsic Scores → (Lowest score of 4) (5 Subscales) = score of 20 Highest Possible Extrinsic Scores → (Highest score of 24) (5 Subscales) = score of 120
	Promotion	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	
	Supervision	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	
	Fringe benefits	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	
	Operating conditions	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	
INTRINSIC SUBSCALES	Contingent rewards	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	Lowest Possible Intrinsic Scores → (Lowest score of 4) (4 Subscales) = score of 16 Highest Possible Intrinsic Scores → (Highest score of 24) (4 Subscales) = score of 96
	Coworkers	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	
	Nature of work	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	
	Communication	Lowest score →(Likert scale of 1)(4 Questions) = Score of 4 Highest score →(Likert scale of 6)(4 Questions) = Score of 24	

A codebook was created to organize the 449 survey entries (see Appendix M). All data were entered into Microsoft Excel, scale scores were computed, and results were analyzed using Statistical Package for Social Sciences Software (SPSS) for Windows 16.0. Descriptive statistics, including means, standard deviation, and correlations for the overall job satisfaction, the extrinsic job satisfaction, the intrinsic job satisfaction, as well as all of the demographic groups were computed. The demographic data (IVs) included information related to gender, age, ethnicity, marital status, the highest level of education, national board certification, subject taught, salary, years of experience, and the number of schools the individual had worked. Table 12 provides a summary of the statistics to be used for each hypothesis for using MANOVAs.

Table 12

Summary to Illustrate the Various MANOVA Tests that was Conducted

Questions	Levels of Independent Variables	Categories of Independent Variables
1 Independent variable (demographic factor) and 2 dependent variable (extrinsic and intrinsic means)		
Null Hypothesis 1.1 – There is no difference between <i>Gender</i> groups for the intrinsic and extrinsic means of job satisfaction.	2 levels	Female Male
Null Hypothesis 1.2 – There is no difference among <i>Age Group</i> groups for the intrinsic and extrinsic means of job satisfaction.	3 levels	21-30 31-40 41+
Null Hypothesis 1.3 – There is no difference between <i>Ethnicity</i> groups for the intrinsic and extrinsic means of job satisfaction.	2 levels	White Non-White
Null Hypothesis 1.4 – There is no difference between <i>Marital Status</i> groups for the intrinsic and extrinsic means of job satisfaction.	2 levels	Married Not Married
Null Hypothesis 1.5 – There is no difference among <i>Highest Level of Education</i> groups for the intrinsic and extrinsic means of job satisfaction.	3 levels	Bachelor’s Degree, Bachelor’s + Graduate Credit

		Graduate Degree
Null Hypothesis 1.6 – There is no difference between <i>National Board Certified</i> groups for the intrinsic and extrinsic means of job satisfaction.	2 levels	Yes No
Null Hypothesis 1.7 – There is no difference between <i>Subject Taught</i> groups for the intrinsic and extrinsic means of job satisfaction.	2 levels	Academic Core Non-Academic Core
Null Hypothesis 1.8 – There is no difference among <i>Salary</i> groups for the intrinsic and extrinsic means of job satisfaction.	3 levels	\$30,000-\$40,000 \$40,001-\$50,000 \$50,001 +
Null Hypothesis 1.9 – There is no difference among <i>Total Years of Teaching Experience</i> groups for the intrinsic and extrinsic means of job satisfaction.	3 levels	0-1 6-15 15+
Null Hypothesis 1.10 – There is no difference among <i>Number of Schools Taught</i> groups for the intrinsic and extrinsic means of job satisfaction.	3 levels	1 2-3 4+

The Pearson's correlation was used to find a correlation between the dependent variables: extrinsic job satisfaction (Extrinsic JS Mean) and intrinsic job satisfaction (Intrinsic JS Mean), and whether the continuous variables are related to one another (Muijs, 2004). A correlation is a number between -1 and +1 that measures the degree of association between two variables. A positive value for the correlation implies a positive association, meaning as one variable increases in value, the second variable also increases in value. This means that changes in one variable are strongly correlated with changes in the second variable. The correlation value of job satisfaction was used to determine if MANOVA or univariate statistics would be used. If the correlation between the extrinsic and intrinsic subscales was between .3 and .7, MANOVA statistics would be used. This was done to prevent the risk of multicollinearity, which is when one dependent variable is highly correlated ($r \geq .80$) and is almost a weighted average of the

other dependent variable (Mertler & Vannatta, 2005). If the correlation was less than .3 or greater than .7, a univariate test would be conducted. A t-test was used if only two means exist; ANOVA was to be used with three or more means (see Figure 9).

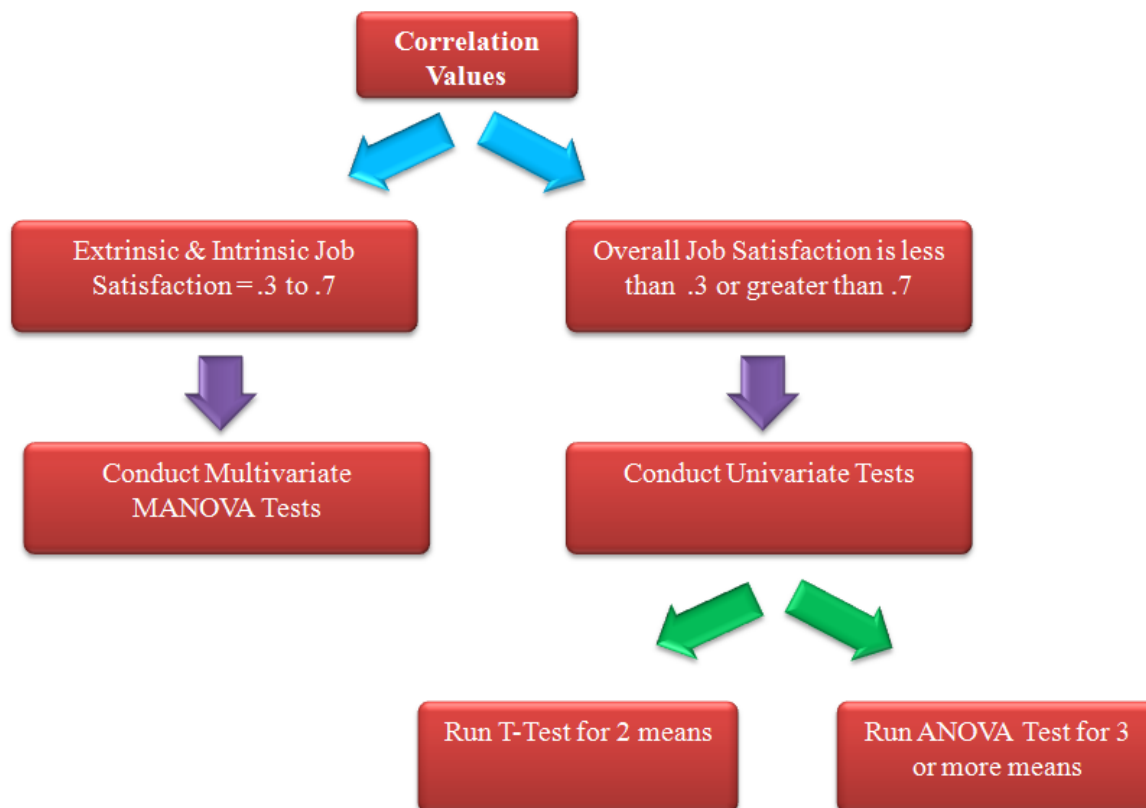


Figure 9. Univariate & multivariate test flow chart.

The correlation of the dependent variables resulted in 0.630 (see Table 13), which falls within the acceptable .3 and .7 range. Therefore, ten separate MANOVA tests were used to answer the research questions.

Table 13

Pearson's Correlation of the Dependent Variables Extrinsic Job Satisfaction & Intrinsic Job Satisfaction

		Extrinsic JS Mean	Intrinsic JS Mean
Extrinsic JS Mean	Pearson Correlation	1	.630**
	Sig. (2-tailed)		.000
	N	449	449
Intrinsic JS Mean	Pearson Correlation	.630**	1
	Sig. (2-tailed)	.000	
	N	449	449

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

Prior to running a MANOVA test, several pre-analysis data procedures were taken into consideration. First, accuracy of the data were screened by examining the data using frequency distributions and descriptive statistics with SPSS frequencies procedure. Second, missing data which are errors that occur during data entry process were reviewed. The amount of missing data is less crucial than the pattern of missing data (Tabachnick & Fidell, 1996). Nonrandom missing data create problems with respect to the generalizability of the results. Appendix N shows the case processing table for missing data that all 449 surveys were inserted correctly. The following rules for missing data were utilized for this study:

1. If the respondent on the JSS failed to circle a choice in the JSS for one of the questions in the nine subscales (there are four questions for each subscale), an average was calculated from responses in the remaining three questions to replace the missing entry.
2. If respondents were undecided on two Likert scale scores (i.e., 3 and 4) an average of the other three questions from the same subscale were calculated, and the score closest to the average was selected.

3. If the respondent on the Demographic Questionnaire circled both academic core class and special education, non-academic selection was used because special education teachers often have an “academic” focus, but they are technically still non-academic teachers.
4. If the respondent failed to answer four questions on a subscale, the entire survey was deleted.

Third, the effects of extreme values (i.e., outliers) on the analysis were considered. Multivariate outliers were assessed using the Mahalanobis distance and critical chi square procedure. Mahalanobis distance is “the distance of a case from the centroid of the remaining cases where the centroid is the point created by the means of all the variables” (Mertler & Vannatta, 2005, p. 342). The Mahalanobis distance was calculated by examining the dependent variables of extrinsic job satisfaction (EJS) and intrinsic job satisfaction (IJS). A table of critical values for chi square was used to determine the critical value for χ^2 . See Appendix O for the chi square table. The number of variables examined for outliers is used as the degrees of freedom. Given that there were ten independent variables for this study, the degrees of freedom resulted in eleven. Outliers were determined by using the critical chi square value with degrees of freedom equal to eleven ($\chi^2(11) = 31.26$ at $p < .001$). Consequently, cases with a Mahalanobis distance greater than 31.26 are considered multivariate outliers for the variables extrinsic and intrinsic job satisfaction. Appendix P lists the five highest and lowest values for Mahalanobis distance. Zero cases were identified as outliers as none of the data exceeded the chi square 31.26, and therefore zero cases were eliminated.

The last screening consisted of assessing the data for the adequacy of fit between the data and the assumptions of a specific procedure. There are three basic assumptions: normality, linearity, and homoscedasticity (Mertler, & Vannatta, 2005). Normality and linearity of variable

combinations were examined first. Since the study included two dependent variables (extrinsic and intrinsic job satisfaction), univariate normality was examined for each individual variable; however, multivariate normality was assessed as well to verify the accuracy of the screening. To assess univariate normality, the Explore procedure in SPSS was conducted for each of the dependent variables that illustrated the following results: Descriptive statistics, histogram, and normal Q-Q plots.

Descriptive statistics (see Appendix Q) presented values for skewness (.126 for extrinsic job satisfaction and .311 for intrinsic job satisfaction) and kurtosis (.611 for extrinsic job satisfaction and .612 for intrinsic job satisfaction), which imply positive distribution. For a normal distribution, skewness and kurtosis values should be close to zero but can range between between +1 and -1 (Mertler & Vannatta, 2005). Histograms (see Appendix R) displayed normal distribution for extrinsic job satisfaction and slightly positive skew for intrinsic job satisfaction. The normal Q-Q plots supported this finding as the majority of the observed values did not deviate from the straight line (see Appendix S). A normal distribution would produce a Q-Q plot in which plots fall close to the straight line.

Test of normality was calculated using the Kolmogorov-Smirnov test (see Appendix T). The result indicated a normal distribution for extrinsic job satisfaction variable (.097); however significantly rejected the hypothesis of normality of intrinsic job satisfaction (.015). Thus the independent variable for intrinsic job satisfaction was transformed. Data transformation “involve the application of mathematical procedures to the data in order to make them appear more normal” (Johnson & Wichern, 1998, quoted in Mertler & Vannatta, 2005). Since the transformation is done on every data points, “the order and relative position of observations is not affected” (Aron & Aron, 1997, Mertler & Vannatta, 2005).

In an effort to decrease the moderate positive skewness, the transformation procedure will reflect and take the square root of the intrinsic variable ($newIM = \text{SQRT}(X)$). Square-root transformation may help equate group variances, and because it compresses the upper end of a distribution more than it compresses the lower end, it may also have the effect of making positively skewed distributions more nearly normal in shape (Tabachnick & Fidell, 2007). As a result, the intrinsic job satisfaction was recoded into a different variable ($newIM$), to provide a record of both the original and altered variable.

Once data has been transformed, examination of normality was conducted again using the Explore procedure. The results show that the skewness and kurtosis values are much closer to zero (see Appendix U) with the histogram (see Appendix V) and normal Q-Q plot (see Appendix W) revealing a more normal distribution. In addition, the Tests of Normality is not significant, which indicates a normal distribution (see Appendix X).

The most common method evaluating multivariate normality is creating scatterplots of all variables (extrinsic and intrinsic job satisfaction) in relation to one another. If variable combinations are normal, scatterplots will display elliptical shapes. The output (see Appendix Y) displayed elliptical shapes for the dependent variables, which implied normality and linearity. In regards to homoscedasticity, a residual plot was created to compare standardized residuals to the predicted values of the dependent variables. When the assumptions of linearity, normality, and homoscedasticity are met, residuals will create an appropriate rectangular distribution with a concentration of scores along the center. Appendix Z displayed fairly consistent scores throughout the plot with concentration in the center. When assumptions are not met, residuals may be clustered on the top or bottom of the plot (non-normality), may be curved (nonlinearity), or may be clustered on the right or left side (heteroscedasticity). Since extreme clustering was

not displayed, it was concluded that the assumptions of normality, linearity, and homoscedasticity were met for the dependent variables.

The Pearson's correlation that was used to find a correlation between the dependent variables was conducted again to ensure the extrinsic job satisfaction (Extrinsic JS Mean) and the new intrinsic job satisfaction (*newIM*) is within the acceptable range of .3 to .7. The correlation of the dependent variables resulted in 0.630, which is acceptable to continue the study with MANOVAs.

The analysis was completed using the SPSS software. An alpha of less than ($p < .05$) was used throughout this study to determine the level of significance for all pertinent research questions. The first step in interpreting the MANOVA results was to evaluate the Box's Test. In multivariate situations, homoscedasticity can be assessed statistically by using the Box's M test for equality of variance-covariance matrices. If homogeneity of variance-covariance is assumed (sig. $>.05$), meaning the variability in the two dependent variables are about the same, the Wilks' Lambda statistics was utilized to interpret the multivariate tests. If the assumption of equal variance is violated (sig. $<.05$), Pillai's Trace was used when interpreting the data. Once the appropriate multivariate test statistics was identified, the significance (F ratios and p values) of factor interaction were examined. If multivariate significance is found (sig. $<.05$), the univariate ANOVA results were interpreted to determine significance group differences for each dependent variable. If statistically significant results were not achieved (sig. $>.05$), further follow-up tests were not performed. If univariate significance from ANOVA is revealed (sig. $<.05$), multiple comparison procedure (MCP) procedure was used to identify which groups are significantly different for each dependent variable.

A number of statistical methods have been developed to test for the differences in means among the levels of a MANOVA factor. Collectively, these are known as MCP or post hoc (after the fact) tests. For the purpose of this study, the Fisher's Least Significant Difference Test (LSD) procedure was used. This test uses repeated t-test and thus does not hold the experimentwise alpha constant. It is the most liberal of all MCPs, which means it holds more power and is easier to find significance among the demographic factors and the extrinsic and intrinsic job satisfaction (Toothaker, 1993). Figure 10 describes the process taken to screen for outliers, missing data, and the additional steps taken to evaluate the decision-making process for conducting the MANOVA statistics.

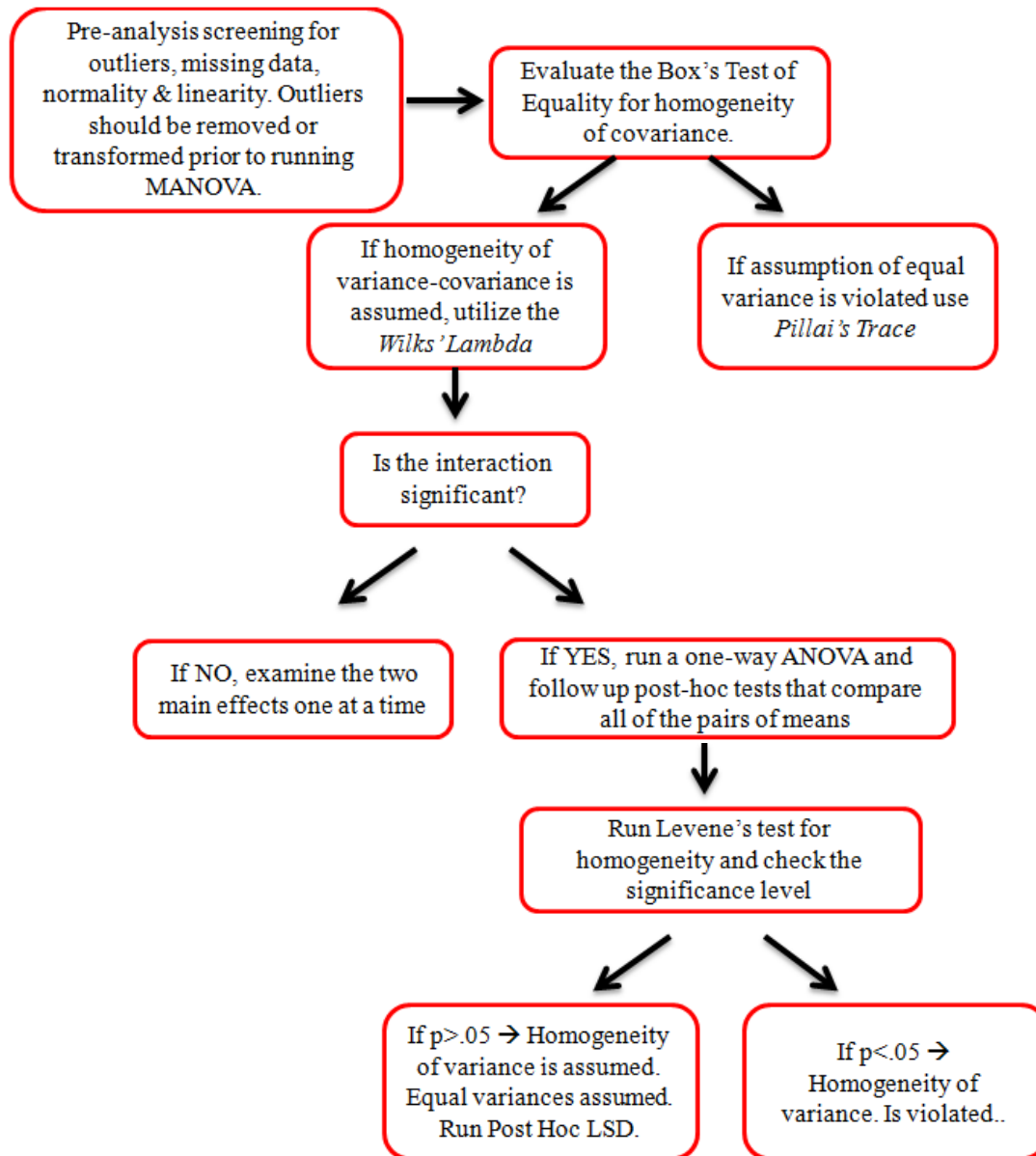


Figure 10. MANOVA Flow Chart.

CHAPTER IV

Results and Findings

The purpose of this study was to explore the job satisfaction of teachers who work in urban high schools. The research followed a quantitative study design, using 10 separate multiple analyses of variance (MANOVA) tests. This chapter is divided into three sections. The first section includes the overall descriptive statistics from both the Demographic Questionnaire and JSS. The second section is organized according to specific hypothesis made about the various nine subscales of the extrinsic and intrinsic job satisfaction. The last section is a summary of the chapter.

Presentation and Analyses of Data

The JSS was administered to 449 high school teachers in seven high schools in an urban school district within a six week period. Cronbach's alphas were computed for the data collected during this study. The reliability coefficients of the JSS were discussed in chapter 3 (see Table 8). The corresponding values for this study ranged from .748 (Operating procedures) to .798 (Promotion) and are summarized in Table 14.

Table 14

<i>Internal Consistency for the JSS in the Current Study</i>	
Subscale	Coefficient Alpha (From This Study)
Pay	.787
Promotion	.798
Supervision	.784
Fringe benefits	.795
Operating procedures	.748
Contingent rewards	.794
Coworkers	.791
Nature of work	.780
Communication	.764
Total	.802
Sample size	449

An analysis of the demographic data received from the study indicates most of the participants that responded to the study came from School D. This was followed by School E, School C, School G, School B, School F and School A (see Figure 11). The accessible population of this study from each high school is also indicated in Table 15.

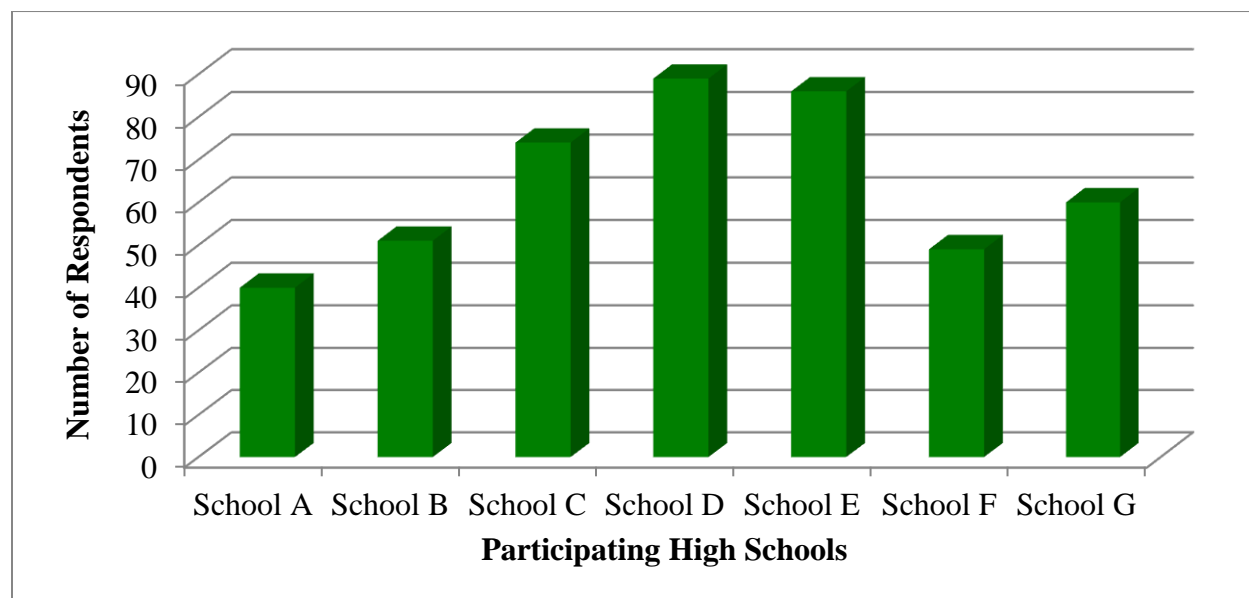


Figure 11. Number of participants from the high schools.

Table 15

Descriptive Information on the Number of Respondents from Each School

Variable	Frequency (n)	Percentage (%)
7 High School Sites		
School A	40	8.9%
School B	51	11.3%
School C	74	16.5%
School D	89	19.8%
School E	86	19.2%
School F	49	10.9%
School G	60	13.4%

(N = 449)

Personal Characteristics from the Demographic Questionnaire. The following demographic characteristics were determined by the responses to the Demographic Questionnaire added to the survey. The demographic variables that were selected for analysis included gender, age group, ethnicity, marital status, of education, national board certification, subject taught, salary, years of experience, and the number of schools at which the individual worked. Personal characteristics of the high school teachers who responded were examined in the study. Table 16 lists the personal characteristics including gender, age group, ethnicity, marital status and salary. The majority of the respondents were female (n = 241 or 53.7%). For the purpose of this analysis, age was divided into three groups. A small majority of the respondents were 51 and over years of age (n = 230 or 51.2%). A vast majority (n = 412 or 91.2%) of teachers self-identified as White. Seventy-Two percent of teacher who responded to this survey reported being married. Most of the respondents (n = 185 or 41.2%) reported of having a salary of \$40,001-\$50,000.

Table 16

Personal Descriptive Information on Respondents' Demographic Characteristics

Variable	Frequency (n)	Percentage (%)
Gender		
Male	208	46.3%
Female	241	53.7%
Age Group		
21-30	68	15.2%
31-40	151	33.6%
41+	230	51.2%
Ethnicity		
White	412	91.8%
Non-White	37	8.2%
Marital Status		
Married	322	71.7%
Not married	127	28.3%
Salary		
\$30,000-\$40,000	111	24.7%
\$40,001-\$50,000	185	41.2%
\$50,001 +	153	34.1%

(N = 449)

Professional Characteristics from the Demographic Questionnaire. This study collected information about the professional characteristics of the high school teachers. Table 17 lists the professional characteristics including highest level of formal education, whether they are national board certified, subject taught, years of teaching experience, and the number of different schools taught within their teaching career. Information was gathered regarding the education level of the teachers. The questionnaire asked the respondents to identify the highest degree earned. A majority (n = 281 or 62.6%) held at least a master's degree. Demographics of the respondents revealed that (n = 44 or only 9.8%) identified themselves as being National Board certified. Participation by type of subject taught was (n = 280 or 62.4%) in academic core, meaning that the majority of teachers taught classes that are mandatory for graduation and are not classified as elective courses. As to the total years of teaching experience (n = 211 or 50%)

had taught for a period of 6-15 years. Information on the number of different schools taught during the respondent's teaching career was also collected. Over half of teachers (n = 230) had taught in 2-3 different schools.

Table 17

Professional Descriptive Information on Respondents' Demographic Characteristics

Variable	Frequency (n)	Percentage (%)
Highest Level of Formal Education		
Bachelor's Degree	39	8.7%
Bachelor's + Graduate Credit	129	28.7%
Graduate Degree (MA, MS, Ed.S, Ed.D, Ph.D)	281	62.6%
National Board Certified		
Yes	44	9.8%
No	405	90.2%
Subject Taught		
Academic Core	280	62.4%
Non-Academic Core	169	37.6%
Total Years of Teaching experience (K-12)		
0-5	83	18.5%
6-15	211	50%
15+	155	34.5%
Number of Different Schools Taught		
1	134	29.8 %
2-3	230	51.2%
4+	85	19%

(N = 449)

Descriptive Information from JSS. Spector's (1985) JSS assesses nine subscales of job satisfaction and computes an overall extrinsic level, intrinsic level, and overall level of job satisfaction. There are nine subscales in the JSS which consists of pay, promotion, supervision, fringe benefits, operating conditions, contingent rewards, coworkers, nature of work, and communication. From the nine subscales of perceived job satisfaction, four measure intrinsic job

satisfaction (contingent rewards, coworkers, nature of work, and communication) and the remaining five measure extrinsic job satisfaction (pay, promotion, supervision, fringe benefits, and operating conditions). Total subscale score were used within each area. Each item has a Likert rating scale with six agree-disagree response choices. For each item, respondents were asked to indicate which one of the six statements corresponded to their level of agreement or disagreement. Agreement with a statement indicated either a positive or a negative attitude about the job because half the items are worded positive and half were worded negatively. All negatively stated were reversed scored; thus a larger score indicated a higher level of job satisfaction. The overall satisfaction score is the sum of all 36 items and is a combination of extrinsic and intrinsic job satisfaction scores, which could range from 36 to 216. The possible extrinsic scores could range from 20-120 and the possible intrinsic scores could range from 16-96. Scores in each of the nine subscales ranged from 4 to 24.

Descriptive statistics including the minimum, maximum, mean, percentage, and the standard deviation were computed to summarize, to gain an understanding, and to identify potential problems (see Table 18).

Table 18

Descriptive Data of Extrinsic, Intrinsic and Overall Job Satisfaction

		Minimum	Maximum	Mean	Standard Deviation
Lowest score = 4, Highest score = 24					
Extrinsic Subscales	Pay	4	24	9.88	4.28
	Promotion	4	24	12.72	4.00
	Supervision	4	24	18.78	4.74
	Fringe benefits	4	24	13.75	4.28
	Operating conditions	4	23	11.00	3.64
Intrinsic Subscales	Contingent rewards	4	24	13.38	4.40
	Coworkers	7	24	18.63	3.40
	Nature of work	5	24	18.45	3.32
	Communication	4	24	14.81	4.61
Lowest score = 20, Highest score = 120					
Extrinsic JS Mean		22	114	66.13	13.26
Lowest score = 16, Highest score = 96					
Intrinsic JS Mean		31	118	65.27	12.62
Lowest score = 36, Highest score = 216					
Overall JS Mean		69	202	131.40	23.36

Note. Intrinsic JS Mean was calculated prior to the square root transformation.

The variables that were selected for analysis from the JSS include the nine subscales, the intrinsic job satisfaction, extrinsic job satisfaction and overall job satisfaction. Appropriate statistical charts or graphs were created to display the data. For graphic purposes only, the relative total responses for the intrinsic and extrinsic scales were converted to percentages; the analysis of the data will be conducted on the total raw scores. Description of the levels of satisfaction among the nine subscales composition is presented in Figure 12.

Although it is recognized that comparing the two unequal scales of intrinsic and extrinsic motivation is inappropriate because each scale measures a different construct, the practice is widespread in the literature and was therefore included in the analysis for this study.

Respondents scored higher with the intrinsic job satisfaction (65.27 out of 96 or 67.99%) than

extrinsic job satisfaction (66.13 out of 120 or 55.11%) consistently in all 7 high schools. This suggests the 449 high school participants were more intrinsically motivated doing their jobs as teachers. The overall job satisfaction resulted in (131.40 out of 216 or 60.83%).

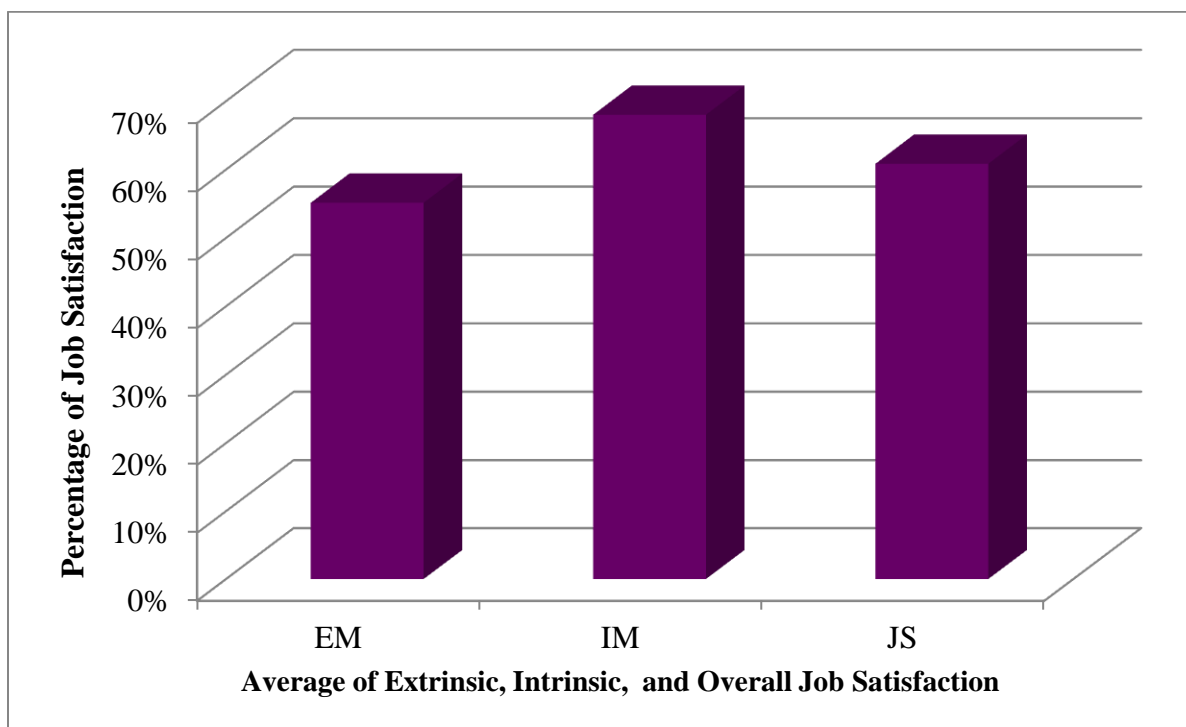


Figure 12. Average of extrinsic, intrinsic, & overall job satisfaction.

Regarding the levels of satisfaction based on the nine subscales, teachers' responses revealed they were most satisfied with supervision (18.78) (see Figure 13). The levels of satisfaction of the other subscales in descending order were Coworkers (18.63), Nature of work (18.45), Communication (14.81), Fringe benefits (13.75), Contingent rewards (13.38), Promotion (12.72), Operating conditions (11.00), and Pay (9.88).

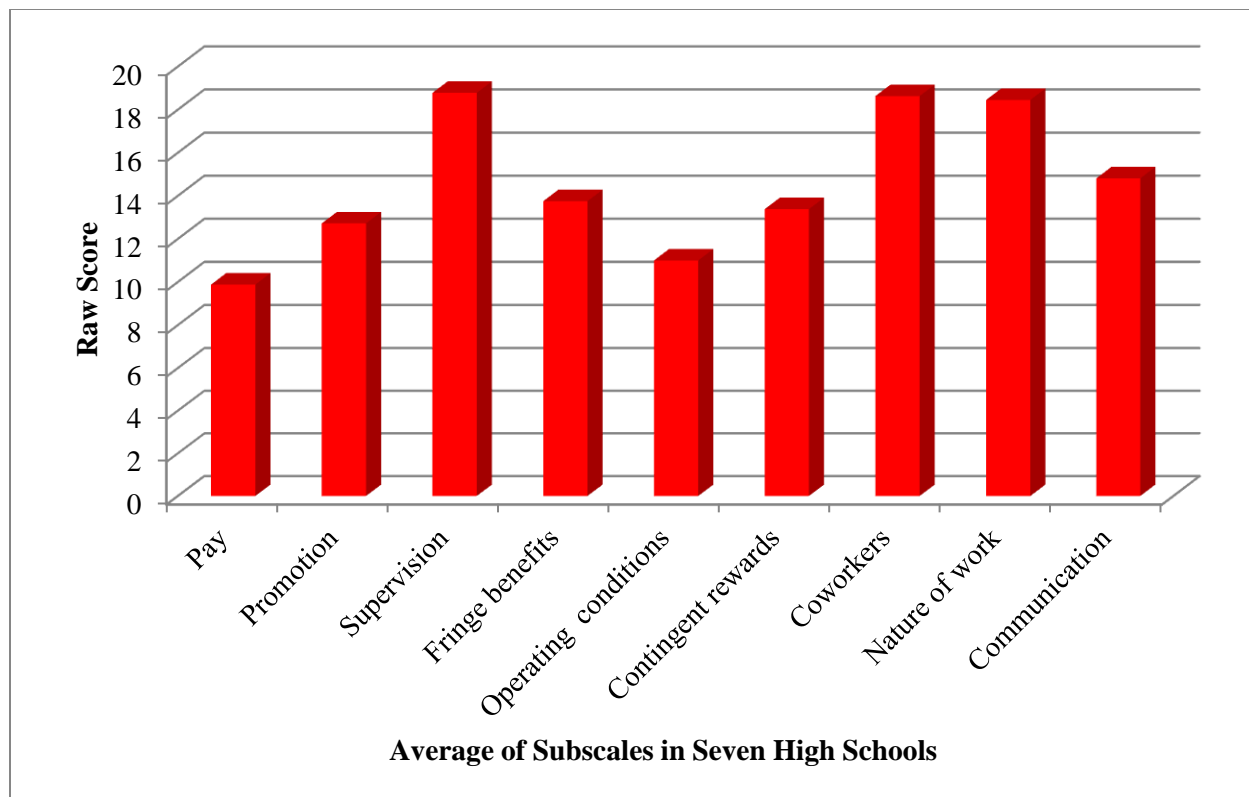


Figure 13. Average of the nine subscales.

As reported in Figure 14, teachers in high school (HS) A expressed the highest level of overall job satisfaction (140.50). This was followed in descending order by teachers in high school E (138.47), high school F (137.53), high school B (134.43), high school D (126.22), high school C (121.33), and finally high school G (121.27).

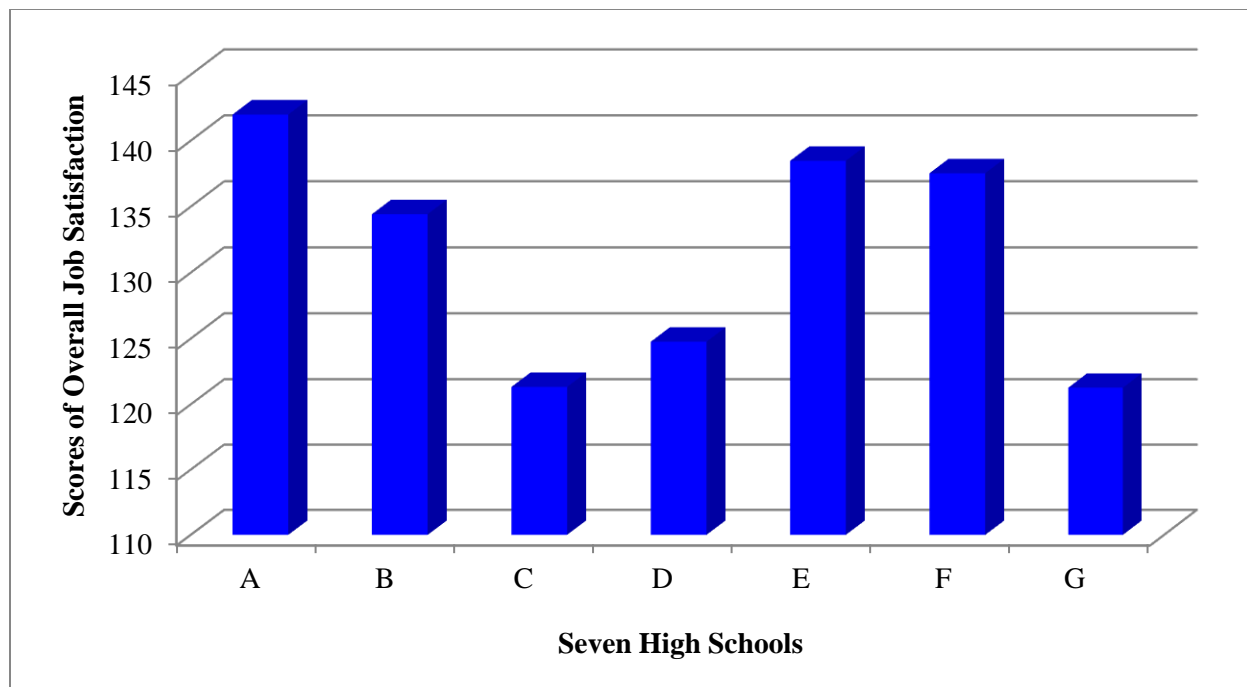


Figure 14. Total Scores for overall job satisfaction by the seven high schools.

As shown in Table 19, School A had forty participants who responded to both the JSS and Demographic Questionnaire. The score of extrinsic job satisfaction is 69.71, intrinsic job satisfaction is 70.81, and overall job satisfaction is 140.5. Results from the nine subscales revealed that teachers scored the highest satisfaction with Supervision (20.80) followed by Coworkers (19.98), Nature of work (18.90), Communication (17.53), Contingent rewards (14.40), Fringe benefits (14.28), Promotion (13.30), Operating conditions (11.10), and the lowest satisfaction with Pay (10.23).

Table 19

Descriptive Data of the Nine Subscales & Job Satisfaction for School A.

High School	Job Satisfaction	Raw Score	The 9 Subscales 4-24	Raw Score 1-24
School A N=40	Extrinsic Job Satisfaction 20-120	69.71	Supervision	20.80
			Coworkers	19.98
			Nature of work	18.90
	Intrinsic Job Satisfaction 16-96	70.81	Communication	17.53
			Contingent rewards	14.40
			Fringe benefits	14.28
	Overall Job Satisfaction 36-216	140.52	Promotion	13.30
			Operating conditions	11.10
			Pay	10.23

Note. Intrinsic JS Mean was calculated prior to the square root transformation.

As shown in Table 20, School B had fifty-one participants who responded to both the JSS and Demographic Questionnaire. The score of extrinsic job satisfaction is 68.81, intrinsic job satisfaction is 65.62, and overall job satisfaction is 134.43. Results from the nine subscales revealed that teachers at this school scored the highest satisfaction with Nature of work (18.80), followed by Supervision (18.57), Coworkers (17.98), Communication (14.82), Fringe benefits (14.55), Contingent rewards (14.02), Operating conditions (12.75), Promotion (12.10), and the lowest satisfaction with Pay (10.84).

Table 20

Descriptive Data of the Nine Subscales & Job Satisfaction for School B.

High School	Job Satisfaction	Raw Score	The 9 Subscales 4-24	Raw Score 1-24
School B N=51	Extrinsic Job Satisfaction 20-120	68.81	Nature of work	18.80
			Supervision	18.57
			Coworkers	17.98
	Intrinsic Job Satisfaction 16-96	65.62	Communication	14.82
			Fringe benefits	14.55
			Contingent reward	14.02
	Overall Job Satisfaction 36-216	134.43	Operating conditions	12.75
			Promotion	12.10
			Pay	10.84

Note. Intrinsic JS Mean was calculated prior to the square root transformation.

As shown in Table 21, School C had seventy-four participants who responded to both the JSS and Demographic Questionnaire. The score of extrinsic job satisfaction is 62.24, intrinsic job satisfaction is 59.10, and overall job satisfaction is 121.34. Results from the nine subscales revealed that teachers at this school scored the highest satisfaction with Supervision (17.75), followed by Nature of work (17.61), Coworkers (17.37), Fringe benefits (13.37), Communication (12.90), Promotion (11.67), Contingent rewards (11.22), Operating conditions (10.49), and the lowest satisfaction with Pay (8.96).

Table 21

Descriptive Data of the Nine Subscales & Job Satisfaction for School C.

High School	Job Satisfaction	Raw Score	The 9 Subscales 4-24	Raw Score 1-24
School C N=74	Extrinsic Job Satisfaction 20-120	62.24	Supervision	17.75
			Nature of work	17.61
			Coworkers	17.37
	Intrinsic Job Satisfaction 16-96	59.10	Fringe benefits	13.37
			Communication	12.90
			Promotion	11.67
	Overall Job Satisfaction 36-216	121.34	Contingent rewards	11.22
			Operating conditions	10.49
				Pay

Note. Intrinsic JS Mean was calculated prior to the square root transformation.

As shown in Table 22, School D had eighty-nine participants who responded to both the JSS and Demographic Questionnaire. The score of extrinsic job satisfaction is 62.06, intrinsic job satisfaction is 64.16, and overall job satisfaction is 126.22. Results from the nine subscales revealed that teachers at this school scored the highest satisfaction with Coworkers (18.67), followed by Nature of work (18.47), Supervision (17.78), Communication (14.78), Fringe benefits (13.22), Contingent rewards (12.24), Promotion (12.16), Operating conditions (10.29), and the lowest satisfaction with Pay (8.61).

Table 22

Descriptive Data of the Nine Subscales & Job Satisfaction for School D.

High School	Job Satisfaction	Raw Score	The 9 Subscales 4-24	Raw Score 1-24
School D N=89	Extrinsic Job Satisfaction 20-120	62.06	Coworker	18.67
			Nature of work	18.47
			Supervision	17.78
	Intrinsic Job Satisfaction 16-96	64.16	Communication	14.78
			Fringe benefits	13.22
			Contingent rewards	12.24
	Overall Job Satisfaction 36-216	126.22	Promotion	12.16
			Operating conditions	10.29
			Pay	8.61

Note. Intrinsic JS Mean was calculated prior to the square root transformation.

As shown in Table 23, School E had eighty-six participants who responded to both the JSS and Demographic Questionnaire. The score of extrinsic job satisfaction is 68.44, intrinsic job satisfaction is 70.04, and overall job satisfaction is 138.48. Results from the nine subscales revealed that teachers at this school scored the highest satisfaction with Supervision (21.53), followed by Coworkers (19.24), Nature of work (18.76), Communication (17.12), Contingent rewards (14.92), Fringe benefits (13.16), Promotion (12.86), Operating conditions (10.78), and the lowest satisfaction with Pay (10.14).

Table 23

Descriptive Data of the Nine Subscales & Job Satisfaction for School E.

High School	Job Satisfaction	Raw Score	The 9 Subscales 4-24	Raw Score 1-24
School E N=86	Extrinsic Job Satisfaction 20-120	68.44	Supervision	21.53
			Coworkers	19.24
			Nature of work	18.76
	Intrinsic Job Satisfaction 16-96	70.04	Communication	17.12
			Contingent rewards	14.92
			Fringe benefits	13.16
	Overall Job Satisfaction 36-216	138.48	Promotion	12.86
			Operating conditions	10.75
			Pay	10.14

Note. Intrinsic JS Mean was calculated prior to the square root transformation.

As shown in Table 24, School F had forty-nine participants who responded to both the JSS and Demographic Questionnaire. The score of extrinsic job satisfaction is 68.46, intrinsic job satisfaction is 69.06, and overall job satisfaction is 137.52. Results from the nine subscales revealed that teachers at this school scored the highest satisfaction with Supervision (19.82), followed by Nature of work (19.31), Coworkers (19.24), Communication (16.08), Contingent rewards (14.43), Fringe benefits (13.76), Promotion (13.37), Operating conditions (11.02), and the lowest satisfaction with Pay (10.49).

Table 24

Descriptive Data of the Nine Subscales & Job Satisfaction for School F.

High School	Job Satisfaction	Raw Score	The 9 Subscales 4-24	Raw Score 1-24
School F N=49	Extrinsic Job Satisfaction 20-120	68.46	Supervision	19.82
			Nature of work	19.31
			Coworkers	19.24
	Intrinsic Job Satisfaction 16-96	69.06	Communication	16.08
			Contingent rewards	14.43
			Fringe benefits	13.76
	Overall Job Satisfaction 36-216	137.52	Promotion	13.37
			Operating conditions	11.02
			Pay	10.49

Note. Intrinsic JS Mean was calculated prior to the square root transformation.

As shown in Table 25, School G had sixty participants who responded to both the JSS and Demographic Questionnaire. The score of extrinsic job satisfaction is 63.20, intrinsic job satisfaction is 58.07, and overall job satisfaction is 121.27. Results from the nine subscales revealed that teachers at this school scored the highest satisfaction with Coworkers (17.92), followed by Nature of work (17.27), Supervision (15.20), Fringe benefits (13.94), Promotion (13.59), Contingent rewards (12.45), Operating conditions (10.59), Communication (10.43), and the lowest satisfaction with Pay (9.88).

Table 25

Descriptive Data of the Nine Subscales & Job Satisfaction for School G.

High School	Job Satisfaction	Raw Score	The 9 Subscales 4-24	Raw Score 1-24
School G N=60	Extrinsic Job Satisfaction 20-120	63.20	Coworkers	17.92
			Nature of work	17.27
			Supervision	15.20
	Intrinsic Job Satisfaction 16-96	58.07	Fringe benefits	13.94
			Promotion	13.59
			Contingent rewards	12.45
	Overall Job Satisfaction 36-216	121.27	Operating conditions	10.59
			Communication	10.43
			Pay	9.88

Note. Intrinsic JS Mean was calculated prior to the square root transformation.

Testing the Research Hypothesis

This section presents the major findings of the study. For these analyses, the data was grouped using various demographic variables to study assessed intrinsic and extrinsic values from the JSS. The results for each of the hypotheses were reported by first stating the null hypotheses. Second, the results of each analysis were summarized via tables. Finally, a summary of the analysis was presented for each question. Multivariate Analysis of Variance (MANOVA) was used to determine whether differences existed among the demographic variables and the JSS instrument subscales. The data were reviewed with a statistical consultant to reduce errors in the analysis. The following null hypotheses were used in the development and design of this study. Statistical findings are presented for each null hypothesis as follows:

Null Hypothesis 1.1 – There is no difference between groups established by *Gender* for the intrinsic and extrinsic means of job satisfaction.

A one-way multivariate analysis of variance (MANOVA) was conducted to determine if differences existed between the *Gender* groups in extrinsic job satisfaction means and intrinsic job satisfaction means. MANOVA results revealed no significant differences between the *Gender* groups on the dependent variables, Wilks' $\Lambda = .999$, $F(2, 446) = 307$, $p = .735$, multivariate $\eta^2 = .001$. Therefore, the null hypothesis of no difference between *Gender* and the intrinsic and extrinsic means of job satisfaction was not rejected.

Null Hypothesis 1.2 – There is no difference between groups established by *Age Group* for the intrinsic and extrinsic means of job satisfaction.

A MANOVA was conducted to determine if differences existed among *Age Group* categories in extrinsic job satisfaction means and intrinsic job satisfaction means. The categories of age groups were 21-30, 30-40, and 50+. MANOVA results revealed significant differences among the *Age Group* categories on the dependent variables, Wilks' $\Lambda = .976$, $F(4, 890) = 2.716$, $p < .05$, multivariate $\eta^2 = .012$. Therefore, the null hypothesis of no difference among *Age Group* and the intrinsic and extrinsic means of job satisfaction was rejected.

Post hoc analysis using Analysis of Variance (ANOVA) was conducted on each dependent variable. The test revealed that the means for *Age Group* were significant for intrinsic job satisfaction, $F(2, 446) = 3.214$, $p < .05$, partial $\eta^2 = .014$. Differences in extrinsic job satisfaction means were not significant, $F(2, 446) = .405$, $p = .667$, partial $\eta^2 = .002$. The results of this analysis are summarized in Table 26.

Table 26

Summary of One-way ANOVA of the Effects of Age Group on Intrinsic and Extrinsic Job Satisfaction Measures

Source	Dependent Variable	df	Mean Square	F	p	Partial Eta Squared
Age Group	Intrinsic JS	2	1.944	3.214	=.041	.014
Error	Intrinsic JS	446	.605			
Age Group	Extrinsic JS	2	71.372	.405	=.667	.002
Error	Extrinsic JS	446	176.317			

Finally, the group means for intrinsic job satisfaction were pared using LSD. The LSD post hoc analysis revealed differences in intrinsic job satisfaction among teachers between the age groups of 21-30 ($M = 8.22$), which resulted in higher intrinsic job satisfaction than their 31-40 counter parts ($M = 7.95$). Thus the differences among groups established by age were associated with differences in responses related to intrinsic job satisfaction. Table 27 presents means and standard deviations for intrinsic job satisfaction means and extrinsic job satisfaction means by *Age Group*.

Table 27

Means and Standard Deviations for Extrinsic Job Satisfaction Mean and Intrinsic Job Satisfaction Mean by Age Group

Age Group	Intrinsic Job Satisfaction Mean		Extrinsic Job Satisfaction Mean	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
21-30	8.22	0.80	67.62	12.14
31-40	7.95	0.75	66.70	11.85
40+	8.09	0.79	66.03	14.41

Note. Square root transformation was done on the Intrinsic JS Mean.

Null Hypothesis 1.3 – There is no difference among groups established by *Ethnicity* for the intrinsic and extrinsic means of job satisfaction.

A MANOVA was conducted to determine if differences existed between the *Ethnicity* groups in extrinsic job satisfaction means and intrinsic job satisfaction means. MANOVA results

revealed no significant differences between the *Ethnicity* groups on the dependent variables, Wilks' $\Lambda = .999$, $F(2, 446) = .221$, $p = .802$, multivariate $\eta^2 = .001$. Therefore, the null hypothesis of no difference between *Ethnicity* and the intrinsic and extrinsic means of job satisfaction was not rejected.

Null Hypothesis 1.4 – There is no difference between groups established by *Marital Status* for the intrinsic and extrinsic means of job satisfaction.

A MANOVA was conducted to determine if differences existed between the *Marital Status* groups in extrinsic job satisfaction means and intrinsic job satisfaction means. MANOVA results revealed no significant differences between the *Marital Status* groups on the dependent variables, Wilks' $\Lambda = .997$, $F(2, 446) = .682$, $p = .506$, multivariate $\eta^2 = .003$. Therefore, the null hypothesis of no difference between *Marital Status* and the intrinsic and extrinsic means of job satisfaction was not rejected.

Null Hypothesis 1.5 – There is no difference among groups established by *Highest Level of Education* for the intrinsic and extrinsic means of job satisfaction.

A MANOVA was conducted to determine *Highest Level of Education* differences in extrinsic job satisfaction means and intrinsic job satisfaction means. The categories of education levels were Bachelor's degree, Bachelor + graduate credit, and Graduate degree. MANOVA results revealed significant differences among the *Highest Level of Education* categories on the dependent variables, Wilks' $\Lambda = .951$, $F(4, 890) = 5.645$, $p < .001$, multivariate $\eta^2 = .025$.

Therefore, the null hypothesis of no difference among *Highest Level of Education* and the intrinsic and extrinsic means of job satisfaction was rejected.

Post hoc analysis using ANOVA was conducted on each dependent variable. The test revealed that *Highest Level of Education* were significant for intrinsic job satisfaction means, F

(2,446) = 9.036, $p < .001$, partial $\eta^2 = .039$. Differences in extrinsic job satisfaction means were significant as well, $F(2,446) = 9.445$, $p < .001$, partial $\eta^2 = .041$. The results of this analysis are summarized in Table 28.

Table 28

Summary of One-way ANOVA of the Effects of Levels of Education on Intrinsic and Extrinsic Job Satisfaction Measures

Source	Dependent Variable	df	Mean Square	F	p	Partial Eta Squared
Levels of Education	Intrinsic JS	2	5.329	9.036	<.001	.039
Error	Intrinsic JS	446	.590			
Levels of Education	Extrinsic JS	2	1600.503	9.445	<.001	.041
Error	Extrinsic JS	446	169.460			

Finally, the group means for intrinsic job satisfaction and extrinsic job satisfaction were compared using LSD. The LSD post hoc analysis revealed differences in extrinsic job satisfaction among teachers with BA ($M = 75.05$) and BA+ GradCredit ($M = 65.05$), and teachers with BA ($M = 75.05$) and Grad ($M = 65.97$). In terms of intrinsic job satisfaction, there were differences between teachers with BA ($M = 8.56$) and BA+GradCredit ($M = 7.99$), and teachers with BA ($M = 8.56$) and Grad ($M = 8.02$). Thus the differences among groups established by education level were associated with differences in responses related to intrinsic and extrinsic job satisfaction. Table 29 presents means and standard deviations for intrinsic job satisfaction means and extrinsic job satisfaction means by *Highest Level of Education*.

Table 29

Means and Standard Deviations for Intrinsic Job Satisfaction Mean and Extrinsic Job Satisfaction Mean by Highest Level of Education

Highest Level of Education	Intrinsic Job Satisfaction Mean		Extrinsic Job Satisfaction Mean	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
BA	8.56	0.61	75.05	13.40
BA+GradCredit	7.99	0.78	65.05	12.59
Grad	8.02	0.78	65.97	13.15

Note. Square root transformation was done on the Intrinsic JS Mean.

Null Hypothesis 1.6 – There is no difference between groups established by *National Board Certified* for the intrinsic and extrinsic means of job satisfaction.

A MANOVA was conducted to determine if differences existed between the *National Board Certified* groups in extrinsic job satisfaction means and intrinsic job satisfaction means. MANOVA results revealed no significant differences between the *National Board Certified* groups on the dependent variables, Wilks' $\Lambda = .997$, $F(2, 446) = .722$, $p = .486$, multivariate $\eta^2 = .003$. Therefore, the null hypothesis of no difference between *National Board Certified* and the intrinsic and extrinsic means of job satisfaction was not rejected.

Null Hypothesis 1.7 – There is no difference between groups established by *Subject Taught* for the intrinsic and extrinsic means of job satisfaction.

A MANOVA was conducted to determine if differences existed between the *Subject Taught* groups in extrinsic job satisfaction means and intrinsic job satisfaction means. MANOVA results revealed no significant differences between the *Subject Taught* groups on the dependent variables, Wilks' $\Lambda = .990$, $F(2, 446) = .290$, $p = .102$, multivariate $\eta^2 = .010$. Therefore, the null hypothesis of no difference between *Subject Taught* and the intrinsic and extrinsic means of job satisfaction was not rejected.

Null Hypothesis 1.8 – There is no difference among groups established by *Salary* for the intrinsic and extrinsic means of job satisfaction.

A MANOVA was conducted to determine if differences existed among the *Salary* groups in extrinsic job satisfaction means and intrinsic job satisfaction means. The categories of salaries were \$30,000-40,000, \$40,001-50,000, and \$50,001+. MANOVA results revealed significant differences among the *Salary* groups on the dependent variables, Wilks' $\Lambda = .967$, $F(4, 890) = 3.728$, $p = .005$, multivariate $\eta^2 = .016$. Therefore, the null hypothesis of no difference among *Salary* and the intrinsic and extrinsic means of job satisfaction was rejected.

Post hoc analysis completed with ANOVA was conducted on each dependent variable. The test revealed that *Salary* category differences were significant for intrinsic job satisfaction means, $F(2, 446) = 6.646$, $p = .001$, partial $\eta^2 = .029$. Differences in extrinsic job satisfaction means were significant as well, $F(2, 446) = 4.514$, $p = .011$, partial $\eta^2 = .020$. The results of this analysis are summarized in Table 30.

Table 30

Summary of One-way ANOVA of the Effects of Salary on Intrinsic and Extrinsic Job Satisfaction Measures

Source	Dependent Variable	df	Mean Square	F	p	Partial Eta Squared
Salary	Intrinsic JS	2	3.960	6.646	.001	.029
Error	Intrinsic JS	446	.596			
Salary	Extrinsic JS	2	781.592	4.514	.011	.020
Error	Extrinsic JS	446	173.132			

Finally, the group means for intrinsic job satisfaction and extrinsic job satisfaction were compared using LSD. The LSD post hoc analysis revealed differences in extrinsic job satisfaction among teachers earning \$30,000-\$40,000 ($M = 69.41$) and \$40,001-\$50,000 ($M = 64.67$). In terms of intrinsic job satisfaction, there were differences between teachers earning

\$30,000-\$40,000 ($M = 8.23$) and \$40,001-\$50,000 ($M = 7.91$), and \$40,001-\$50,000 ($M = 7.91$) and \$50,000+ ($M = 8.12$). Thus the differences among groups established by *Salary* were associated with differences in responses related to intrinsic job satisfaction. Table 31 presents means and standard deviations for intrinsic job satisfaction means and extrinsic job satisfaction means by *Salary*.

Table 31

Means and Standard Deviations for Intrinsic Job Satisfaction Mean and Extrinsic Job Satisfaction Mean by Salary

Salary	Intrinsic Job Satisfaction Mean		Extrinsic Job Satisfaction Mean	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
\$30,000-40,000	8.23	0.74	69.41	12.64
\$40,001-50,000	7.91	0.79	64.67	13.14
\$50,001+	8.12	0.77	66.58	13.54

Note. Square root transformation was done on the Intrinsic JS Mean.

Null Hypothesis 1.9 – There is no difference among groups established by *Total Years of Teaching Experience* groups in extrinsic and intrinsic job satisfaction means.

A MANOVA was conducted to determine if differences existed among the *Total Years of Teaching Experience* differences in extrinsic job satisfaction means and intrinsic job satisfaction means. The number of teaching experience was 0-5, 6-15, and 15+. MANOVA results revealed significant differences among the *Total Years of Teaching Experience* categories on the dependent variables, Wilks' $\Lambda = .963$, $F(4, 890) = 4.223$, $p = .002$, multivariate $\eta^2 = .019$.

Therefore, the null hypothesis of no difference among *Total Years of Teaching Experience* and the intrinsic and extrinsic means of job satisfaction was rejected. The results of this analysis are summarized in Table 31.

Post hoc analysis using ANOVA was conducted on each dependent variable. The test revealed that *Total Years of Teaching Experience* categories differences were significant for

intrinsic job satisfaction, $F(2,446) = 5.768$, $p = .003$, partial $\eta^2 = .025$. Differences in extrinsic job satisfaction means were significant as well, $F(2,446) = 6.157$, $p = .002$, partial $\eta^2 = .027$. The results of this analysis are summarized in Table 32.

Table 32

Summary of One-way ANOVA of the Effects of Years of Experience on Intrinsic and Extrinsic Job Satisfaction Measures

Source	Dependent Variable	df	Mean Square	F	p	Partial Eta Squared
Years of Experience	Intrinsic JS	2	3.450	5.768	.003	.025
Error	Intrinsic JS	446	.598			
Years of Experience	Extrinsic JS	2	1058.391	6.157	.002	.027
Error	Extrinsic JS	446	171.891			

Finally, the group means for intrinsic job satisfaction and extrinsic job satisfaction were compared using LSD. The LSD post hoc analysis revealed differences in extrinsic job satisfaction among teachers' job experience for 0-5 ($M = 70.98$) and 6-15 ($M = 65.86$), and 0-5 ($M = 70.98$) and 15+ ($M = 64.96$). In terms of intrinsic job satisfaction, there were differences among teachers' job experience for 0-5 ($M = 8.31$) and 6-15 ($M = 7.97$) and 0-5 ($M = 8.31$) and 15+ ($M = 8.04$). Table 33 presents means and standard deviations for intrinsic job satisfaction means and extrinsic job satisfaction means by *Total Years of Teaching Experience*.

Table 33

Means and Standard Deviations for Intrinsic Job Satisfaction Mean and Extrinsic Job Satisfaction Mean by Total Years of Teaching Experience

Total Years of Teaching	Intrinsic Job Satisfaction Mean		Extrinsic Job Satisfaction Mean	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
0-5	8.31	0.72	70.98	11.62
6-15	7.97	0.80	65.86	13.45
15+	8.04	0.77	64.96	13.39

Note. Square root transformation was done on the Intrinsic JS Mean.

Null Hypothesis 1.10 – There is no difference among groups established by *Number of Schools Taught* for the intrinsic and extrinsic means of job satisfaction.

A MANOVA was conducted to determine if differences existed among the *Number of Schools Taught* groups in extrinsic job satisfaction means and intrinsic job satisfaction means. MANOVA results revealed no significant differences among the *Number of Schools Taught* groups on the dependent variables, Wilks' $\Lambda = .982$, $F(4, 890) = 2.019$, $p = .090$, multivariate $\eta^2 = .009$. Therefore, the null hypothesis of no difference among *Number of Schools Taught* and the intrinsic and extrinsic means of job satisfaction was not rejected. The following Table 34 summarizes the outcomes of the hypotheses testing for the ten null hypotheses. Appendix AA shows the specific steps taken to analyze the multivariate data, and Figure 15 represents the structure of satisfaction tier from the results.

Table 34

MANOVA of Results Testing the Ten Null Hypothesis.

Null Hypotheses	Outcomes
Null Hypothesis 1.1 – There is no difference between <i>Gender</i> groups for the intrinsic and extrinsic means of job satisfaction.	Null Hypothesis was Supported
Null Hypothesis 1.2 – There is no difference among <i>Age Group</i> groups for the intrinsic and extrinsic means of job satisfaction.	Reject the Null Hypothesis
Null Hypothesis 1.3 – There is no difference between <i>Ethnicity</i> groups for the intrinsic and extrinsic means of job satisfaction.	Null Hypothesis was Supported
Null Hypothesis 1.4 – There is no difference between <i>Marital Status</i> groups for the intrinsic and extrinsic means of job satisfaction.	Null Hypothesis was Supported
Null Hypothesis 1.5 – There is no difference among <i>Highest Level of Education</i> groups for the intrinsic and extrinsic means of job satisfaction.	Reject the Null Hypothesis
Null Hypothesis 1.6 – There is no difference between <i>National Board Certified</i> groups for the intrinsic and extrinsic means of job satisfaction.	Null Hypothesis was Supported
Null Hypothesis 1.7 – There is no difference between <i>Subject Taught</i> groups for the intrinsic and extrinsic means of job satisfaction.	Null Hypothesis was Supported
Null Hypothesis 1.8 – There is no difference among <i>Salary</i> groups for the intrinsic and extrinsic means of job satisfaction.	Reject the Null Hypothesis
Null Hypothesis 1.9 – There is no difference among <i>Total Years of Teaching Experience</i> groups for the intrinsic and extrinsic means of job satisfaction.	Reject the Null Hypothesis
Null Hypothesis 1.10 – There is no difference among <i>Number of Schools Taught</i> groups for the intrinsic and extrinsic means of job satisfaction.	Null Hypothesis was Supported

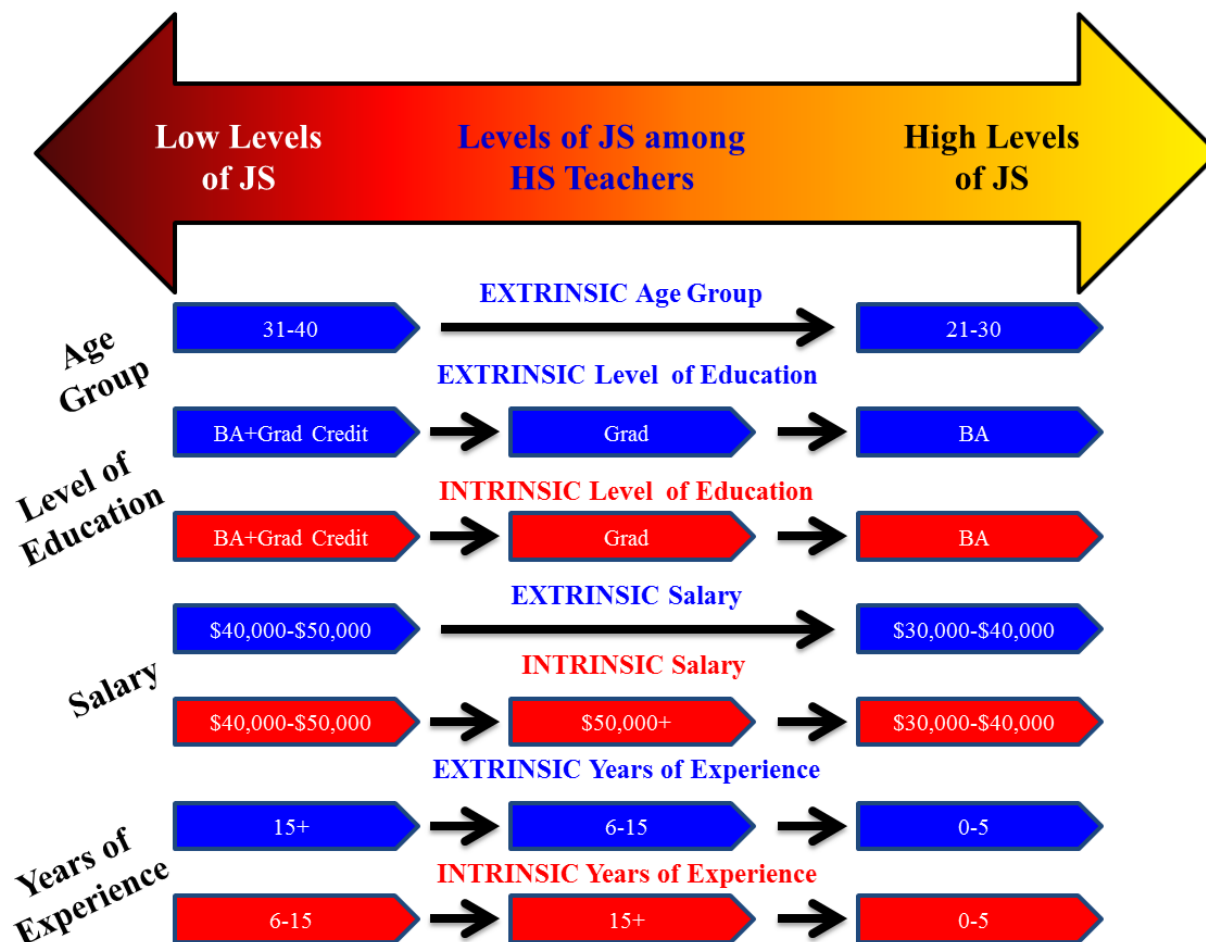


Figure 15. Structure of satisfaction tier.

In order to investigate the relationships between independent variables, a correlational design was used to determine the association between variables. Correlation is a statistical technique that allows for the measurement and description of the relationships between at least two variables. When there are two continuous variables, the Pearson's r correlation coefficient was used; When there are two ordinal variables, Spearman's rho was used to determine if variables were related (Muijs, 2004). A Spearman's Rho Correlation was computed to assess the relationship between the four independent variables (Age Group, Highest Level of Education, Salary, and Total Years of Teaching Experience) that were found to be significant in measuring the extrinsic and intrinsic job satisfaction of high school teachers (see Table 35).

Table 35

Spearman's Rho Correlation of the Four Independent Significant Variables.

	Age Group	Highest Education	Salary	Years of Experience
Age Group	1	.247**	.544**	.627**
Highest Education	.247**	1	.393**	.281**
Salary	.544**	.393**	1	.652**
Years of Experience	.627**	.281**	.652**	1

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

Note. N=449.

Results revealed that there was a positive correlation between the two independent variables: Age Group and Highest Education, $\rho(499) = 0.247, p < .001$; Age Group and Salary, $\rho(499) = 0.544, p < .001$; and Age Group and Years of Experience, $\rho(499) = 0.627, p < .001$.

Correlation analysis also resulted in the following summary association between scores on:

Highest Education and Salary, $\rho(499) = 0.393, p < .001$, and Highest Education and Years of Experience, $\rho(499) = 0.281, p < .001$. In addition job satisfaction in Salary and Years of Experience were also positively correlated, Spearman's $\rho(499) = 0.652, p < .001$.

Summary of Results

This chapter provided results from the analysis of the participant's responses to the Demographic Questionnaire and the survey instrument of the study. The findings from the Demographic Questionnaire indicated that the typical high school teacher in this study was white, female, over the age of 41, married, in possession of a master's degree, reported having a salary of \$40,001-\$50,000 with 6-15 years of experience teaching academic core class, and have taught within 2-3 different schools. In high school, she taught academic core classes for a period of 6-15 years at 2-3 different schools and is not national board certified. Respondents scored higher in the intrinsic job satisfaction than extrinsic job satisfaction consistently in all 7 high schools. In addition, teachers scored the lowest subscales in pay and highest in supervision.

Teachers in high school A expressed the highest level of overall job satisfaction and teachers in high school G expressed the lowest level.

No significance was found across groups associated with gender, ethnicity, marital status, national board certification, teaching subject, and the number of schools taught. Differences in job satisfaction exist across groups associated age group, level of education, salary, and years of experience. In all four cases, high school teachers in the younger age category of 21-30, with the lowest level of education obtaining only a bachelor's degree, making a salary of \$30,000-\$40,000, and have taught the shortest amount of time from 0-5 years had higher intrinsic and extrinsic job satisfaction than their older, more educated, teachers with more income, and more experienced counterparts.

CHAPTER 5

Discussion

The purpose of this study was to examine teacher job satisfaction when responses were grouped by selected demographic variables. Four hundred and forty nine high school teachers who were working in an urban school district in the Western United States were surveyed. The most common profile of the teachers who completed the surveys was:

- Married, white, female, 41+ years of age
- Annual salary from \$40,000-50,000
- Master's degree with 6-15 years teaching experience
- Taught academic core courses in 2-3 different schools

The findings indicated that the highest job satisfaction was revealed in a different profile, however. Specifically teachers who mirrored the following profile reported the highest job satisfaction:

- Age 21-30 years of age
- Annual salary from \$30,000-40,000
- Bachelor's degree with under five years teaching experience

Although Conklin and Cano (1999) found that teacher's age, years in current position, total years teaching, and degree status were not significantly related to overall job satisfaction, most of the literature suggests different results. Indeed, Grady (1985), Berns (1989), and Bishay (1996) all found that as age, total years of teaching, and level of education increased, so did the teacher's level of job satisfaction. Most recently, in a landmark report by Scholastic Inc. and the Bill & Melinda Gates Foundation of more than 10,000 public school teachers in grades pre-K to

12, teachers with over 20 years of experience were found to be the most satisfied in their job (A project of Scholastic, 2012).

One explanation for the higher level of job satisfaction among younger, less experienced teachers may have been the prevailing economic conditions at the time. The study was conducted at the end of 2011 in a state that was particularly affected by the economic recession following the global financial crisis of 2007. At the time and place of the study, the foreclosure rate was the highest in the nation; one in every 118 homes had received a foreclosure filing (“10 States,” 2011). The unemployment rate of 13% was higher than the national average of 7.8% (U.S. Department of Labor, 2012). State budgets, including education had been dramatically reduced. In a poor economy, education majors are classified as one of the most employable majors among students graduating with a bachelor’s degree (From College Major to Career, n.d.). The ability to secure employment immediately out of college, when many students were facing long-term joblessness, may have contributed to higher job satisfaction among the younger high school teachers.

Another possible explanation for younger, less experienced teachers to report higher job satisfaction may have been their academic preparation and readiness to face accountability. The idea of holding schools, districts, educators, and students responsible for results has become the most recent emphasis in education reform efforts. Policymakers are increasingly rewarding achievement and punishing failure in schools. The 2001 reauthorization of the Elementary and Secondary Education Act of 1965 or NCLB Act has increased the external demands on schools through a fundamental change in education by holding schools accountable for their actions. Under NCLB, states must set standards for proficiency in reading and mathematics, collect and disseminate information about student achievement in these subjects, and implement strong

corrective actions for schools and districts that do not meet the program's overall goal of moving all students toward proficiency by 2014. The accountability system was designed to promote high achievement for all students and reduce the disparities in performance among different groups. Younger teachers, whose recent academic preparation included the expectations of NCLB, may have been better prepared to face the external demands than their older counterparts. Older, more educated, and experienced teachers may not have embraced or may have harbored a degree of resentment about new accountability requirements.

Another intriguing finding of this study was that teachers who were working in high poverty, minority populated, and high risk schools did not necessarily display lower job satisfaction than teachers working in more socio-economically advantaged schools. Three of the schools in the study were considered to be high poverty, high minority schools. Teachers at one school reported low job satisfaction, but teachers at the other two schools reported job satisfaction similar to more affluent schools. Findings from teachers working at these two schools were inconsistent with findings from other research.

Ingersoll (2001) reported teacher turnover to be 50% higher in high-poverty schools than in more affluent schools. Hanushek, Kain, and Rivkin (1999) found both new and experienced teachers resign from low-performing schools, which are frequently located in economically disadvantaged areas, at much higher rates than they leave high-performing schools, which are frequently located in economically diverse communities. The study conducted by Scholastic Inc. and the Bill & Melinda Gates Foundation resulted in similar findings. Teachers in higher-income communities were more satisfied than teachers in lower-income communities (A project of Scholastic, 2012).

In contrast, results from this study suggested that working in high schools with higher numbers of minority students who qualified for FRLs did not necessarily lead to lower job satisfaction among their teaching staff. This result may have been because the school district in which this study was conducted had undertaken numerous actions to improve academic achievement in these two schools, such as implementing new leadership, replacing teaching staff, and reorganizing the school's mission and focus. These efforts had been ongoing at least for the previous five years; the schools had made significant academic gains. If the teachers had been working at these schools throughout the transformations, their job satisfaction may have reflected in increased academic record of the school.

Findings from this study also inform the use of the JSS in an educational setting. The JSS instrument used for this study was designed to be used in social service agencies, but has not been used as often in an educational setting. Although data was not collected specifically about the use of the JSS, findings from this study indicated that the instrument has limited utility, perhaps because it is restricted to the nine subscales. During the data collection process, some participants suggested to include more information on the survey that pertains to students' academic achievement, interpersonal relations with students and their parents, instructional and classroom management support, which are integral parts of work condition. Teachers' job satisfaction may be impacted by other variables, primarily related to students, which were not examined during this study.

Implications for Practice

Findings from the study have some practical implications. One is how the demographics of age, education, salary, and experience all appeared to have moderated levels of satisfaction. Therefore, human resource departments within school districts may take these demographic

factors into consideration when hiring teachers. The study provided data suggesting that high school teachers in the middle age group of 31-40 years old, with a bachelor's degree and some graduate credit, with an annual salary of \$40,00-\$50,000 and 6-15 years of experience were less satisfied with their job both intrinsically and extrinsically. Understanding this disparity of teachers within these categories may help human resource practitioners more successfully mitigate employee grievances.

The data also supports the belief that regardless of demographic factors, teachers resulted in higher intrinsic job satisfaction than extrinsic job satisfaction. The finding is consistent with Goodlad (1984) who concluded that the majority of teachers had entered teaching due to the intrinsic nature of the work itself. Teachers are innately more intrinsically motivated doing their jobs with contingent rewards, coworkers, nature of work, and communication. Goodlad also found that money was not the primary reason teachers enter the teaching profession; however it must be noted that Goodlad added that pay was the second ranked most common reason for teachers to leave the profession.

Previous research suggested that compensation is one of the many factors that influence job satisfaction (Barrett, Goldenberg, & Faux, 1992; & Jamal & Baba, 1992). Findings from this study came to a similar conclusion. However, unlike the previous research that showed amount of pay one receives was related to one's satisfaction with the job (Srivastra et al., 1977), this study revealed that teachers earning the least had higher job satisfaction than individuals who earned more. Among the nine subscales, teachers in the seven schools reported least satisfied with pay, and highest with supervision. This supports that salaries for the teaching profession should be professionally competitive and market sensitive in an effort to attract and sustain quality teachers to remain in the field of education. Furthermore, 75% of teachers who

participated in the Primary Sources: 2012 America's Teachers on the Teaching Profession reported that salary was absolutely essential or very important to retaining good teachers. This is especially alarming given that individuals working in areas outside of education have a much higher earning potential than those working in education (Education Week, 2000). When presented with a list of factors to impact teacher job satisfaction and retention, teachers in the Primary Sources reported "higher salaries" did not rank at the top of the list. Supportive leadership was thought to be more important to sustain teacher satisfaction and retention than monetary factors. This study resulted with the same two factors on the highest and lowest spectrum of job satisfaction.

In addition, the final implication of this study found extrinsic job satisfaction trailed behind intrinsic job satisfaction, but within a short margin. It might be useful for school districts to place more emphasis on satisfying teachers extrinsically by focusing on factors such as pay, promotion, supervision, fringe benefits, and operating conditions.

Recommendations for Further Research

There is much work to be done to further explore how demographic factors can contribute to intrinsic and extrinsic job satisfaction among high school teachers in the workplace. This study focused on job satisfaction among high school teachers in an urban school district; findings both supported and challenged previous findings of similar studies. Several suggestions for future research are recommended:

1. This study should be replicated with a larger sample by using different demographic variables and include a more diverse population, since this study focused only on one regional scope. For example, a similar study could be developed outside of urban high schools to include rural areas in the school district where this study was

- conducted and teachers within other, more rural school districts. Comparing the results would further the knowledge within this area of research.
2. In addition, the study should not be delimited to teachers who are currently in high school in the school district. Other personnel from across the grade level spectrum could be incorporated by replicating the study to utilize elementary, and junior high school levels.
 3. The next recommendation is to conduct a study among other groups of employees. It could reveal differences with private and charter school teachers. This study should be replicated by broadening the study sample of teachers with National Board Certifications and different ethnicities. The current sample sizes of these individuals were too small to cause significance in this study. Thus, a more complete theory of the relationship between teacher satisfaction and the nine subscales could be developed.
 4. Further research should be conducted that focuses on other individuals, aside from teachers within the field of education. For example, the perception of administrators, directors, assistant superintendents, and superintendents should be compared in an effort to gain a better understanding of their job satisfaction.
 5. Furthermore, it would be interesting to explore this area by a variety of means. A qualitative study could be accomplished by utilizing individual interviews, focus groups, or case studies among high school teachers. Cooper and Schindler (2006) discussed how a qualitative research provides the means to get more insight into the subject and allows the researcher to ask free-response questions from respondents. Each respondent can provide more in depth information while simultaneously

- allowing the researcher to ask deeper questions and try to clarify the responses by asking more questions if needed.
6. Because poverty, as measured by FRL rates, did not necessarily correspond to low job satisfaction among the teachers, it is recommended that academic achievement of the school, as measured by meeting AYP benchmarks, be included as a variable in future studies. This will allow an examination between high poverty schools that are academically proficient and those that are not.
 7. If the JSS instrument is used in school settings in the future, an open ended question about teacher/student interactions could be added to provide additional insights.

Conclusion

The purpose of this study was to examine teacher job satisfaction when responses were grouped by selected demographic variables. Findings suggested that the differences determined by this research were primarily driven by age group, salary, educational level, and years of teaching experience. However, other conclusions were made that refute many of the long-standing generalizations in literature about demographic factors and job satisfactions among high school teachers. For instance, high school teachers working in two of the three high poverty schools included in the study reported high job satisfaction; this is in contrast to much of the literature. Likewise, younger teachers reported a higher job satisfaction than more veteran teachers, also counter to the literature.

Each of the findings was of importance in contributing to the body of knowledge on the subject of satisfaction pertaining to high school teachers. These findings provide information to policy makers interested in increasing the satisfaction levels of teachers. Special attention should be paid to teachers in the middle categories of age group 31-40, with a formal education of

bachelor's and graduate credits, earning an annual salary of \$40,000-\$50,000 and teaching for 6-15 years, given they scored the lowest satisfaction both extrinsically and intrinsically in comparison with the other two groups.

Recognizing the noteworthy issues of job satisfaction among teachers, the results from this study did provide some important insights and consideration for future research to explore this area by a variety of means. Recommendations were asserted based on the findings and results of the data analysis. The same study should be replicated using qualitative methodology, with a more diverse population geographic wise and across the education spectrum to include primary educators. This study has provided additional understanding of the factors that contribute to job satisfaction among high school teachers working in an urban setting and added to the current body of knowledge by opening the possibility of high school teachers having different levels of job satisfaction according to their age group, levels of education, salary, and year of teaching experience.

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Appendices

Appendix A

Demographic Profile of Students Based on Gender in the 2010-2011 School Year

	Total Enrollment	Male		Female	
		#	%	#	%
State	437,057	225,063	51.5 %	211,993	48.5 %
District	62,324	32,200	51.7 %	30,124	48.3 %
School A	1,301	658	50.6 %	643	49.4 %
School B	1,413	695	49.2 %	718	50.8 %
School C	2,383	1,212	50.9 %	1,171	49.1 %
School D	1,874	980	52.3 %	894	47.7 %
School E	2,220	1,178	53.1 %	1,042	46.9 %
School F	1,631	754	46.2 %	877	53.8 %
School G	1,168	623	53.3 %	545	46.7 %

Appendix B

Demographic Profile of Students for Special Population in the 2010-2011 School Year

	Total Enrollment	IEP		LEP		FRL		Migrant	
		#	%	#	%	#	%	#	%
State	437,057	47,195	10.8 %	87,240	20.0 %	209,503	47.9 %	96	0.0 %
District	62,324	8,125	13.0 %	10,831	17.4 %	27,720	44.5 %	-	-
School A	1,301	122	9.4 %	58	4.5 %	314	24.1 %	-	-
School B	1,413	242	17.1 %	234	16.6 %	1,404	99.4 %	-	-
School C	2,383	305	12.8 %	82	3.4 %	563	23.6 %	-	-
School D	1,874	149	8.0 %	26	1.4 %	280	14.9 %	-	-
School E	2,220	317	14.3 %	113	5.1 %	769	34.6 %	-	-
School F	1,631	190	11.6 %	220	13.5 %	729	44.7 %	-	-
School G	1,168	177	15.2 %	161	13.8 %	712	61.0 %	-	-

Appendix C

Demographic Profile of Student Ethnicity in the 2010-2011 School Year

	American Indian / Alaskan Native		Asian		Hispanic		Black		White		Pacific Islander		Multi-Race	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
State	5,365	1.2 %	26,324	6.0 %	169,510	38.8 %	43,085	9.9 %	169,128	38.7 %	4,683	1.1 %	18,962	4.3 %
District	1,150	1.8 %	3,021	4.8 %	22,969	36.9 %	1,702	2.7 %	30,520	49.0 %	484	0.8 %	2,478	4.0 %
School A	18	1.4 %	74	5.7 %	336	25.8 %	30	2.3 %	765	58.8 %	12	0.9 %	66	5.1 %
School B	16	1.1 %	40	2.8 %	916	64.8 %	90	6.4 %	256	18.1 %	11	0.8 %	84	5.9 %
School C	10	1.2 %	32	3.9 %	134	16.5 %	13	1.6 %	575	70.7 %	1	0.1 %	48	5.9 %
School D	29	1.5 %	202	10.8 %	323	17.2 %	55	2.9 %	1,163	62.1 %	18	1.0 %	84	4.5 %
School E	47	2.1 %	70	3.2 %	770	34.7 %	79	3.6 %	1,167	52.6 %	11	0.5 %	76	3.4 %
School F	30	1.8 %	142	8.7 %	822	50.4 %	36	2.2 %	552	33.8 %	17	1.0 %	32	2.0 %
School G	16	1.4 %	68	5.8 %	760	65.1 %	40	3.4 %	250	21.4 %	9	0.8 %	25	2.1 %

Appendix D

Demographic Questionnaire

1. Are you currently working full-time?
2. What is your gender?
 M F
3. What is your age group?
 21-30 31-40 41-50 50+
4. What is your ethnicity:
 White Non-White
5. What is your marital status?
 Married Not married
6. What level of formal education have you completed?
 Bachelor's Degree Master's Degree Education Specialist
 PhD/EdD Other (Specify) _____
7. Are you National Board Certified?
 Yes No
8. What subject do you teach?
 English/Language Arts Mathematics
 Science Social Studies
 Foreign Languages Arts/Humanities
 English Language Learner Special Education
 Computer Literacy/Technology Physical Education/ JROTC/ Health
 Other: _____
9. What is Your Salary?
 \$30,000-\$40,000 \$40,001-\$50,000
 \$50,001-\$60,000 \$60,001+
10. What are your total years of teaching experience (K-12)?
 0-1 2-5 6-10 11-15 16-30 31+
11. How many different schools have you taught in during your teaching career?
 1 2 3 4 5 More than 5

As an active member of this school community, the willingness to participate in this area can contribute richly and significantly to this study. Thank you for participating!

Appendix E

The Job Satisfaction Survey by Paul E. Spector

The information requested in this section of the instrument is to help in the interpretation of the results of this study. The confidentiality of information provided here is assured. Read carefully, as some of the questions are worded positive and others are worded negative. Please complete the following by circling the correct answer or filling in the blank.

JOB SATISFACTION SURVEY Paul E. Spector Department of Psychology University of South Florida <small>Copyright Paul E. Spector 1994, All rights reserved.</small>		Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
PLEASE CIRCLE THE ONE NUMBER FOR EACH QUESTION THAT COMES CLOSEST TO REFLECTING YOUR OPINION ABOUT IT.							
1	I feel I am being paid a fair amount for the work I do.	1	2	3	4	5	6
2	There is really too little chance for promotion on my job.	1	2	3	4	5	6
3	My supervisor is quite competent in doing his/her job.	1	2	3	4	5	6
4	I am not satisfied with the benefits I receive.	1	2	3	4	5	6
5	When I do a good job, I receive the recognition for it that I should receive.	1	2	3	4	5	6
6	Many of our rules and procedures make doing a good job difficult.	1	2	3	4	5	6
7	I like the people I work with	1	2	3	4	5	6
8	I sometimes feel my job is meaningless.	1	2	3	4	5	6
9	Communications seem good within this organization.	1	2	3	4	5	6
10	Raises are too few and far between.	1	2	3	4	5	6
11	Those who do well on the job stand a fair chance of being promoted.	1	2	3	4	5	6
12	My supervisor is unfair to me.	1	2	3	4	5	6
13	The benefits we receive are as good as most other organizations offer.	1	2	3	4	5	6

14	I do not feel that the work I do is appreciated.	1	2	3	4	5	6
15	My efforts to do a good job are seldom blocked by red tape.	1	2	3	4	5	6
16	I find I have to work harder at my job because of the incompetence of people I work with.	1	2	3	4	5	6
17	I like doing the things I do at work.	1	2	3	4	5	6
18	The goals of this organization are not clear to me.	1	2	3	4	5	6
19	I feel unappreciated by the organization when I think about what they pay me.	1	2	3	4	5	6
20	People get ahead as fast here as they do in other places.	1	2	3	4	5	6
21	My supervisor shows too little interest in the feelings of subordinates.	1	2	3	4	5	6
22	The benefit package we have is equitable.	1	2	3	4	5	6
23	There are few rewards for those who work here.	1	2	3	4	5	6
24	I have too much to do at work.	1	2	3	4	5	6
25	I enjoy my coworkers.	1	2	3	4	5	6
26	I often feel that I do not know what is going on with the organization.	1	2	3	4	5	6
27	I feel a sense of pride in doing my job.	1	2	3	4	5	6
28	I feel satisfied with my chances for salary increases.	1	2	3	4	5	6
29	There are benefits we do not have which we should have.	1	2	3	4	5	6
30	I like my supervisor.	1	2	3	4	5	6
31	I have too much paperwork.	1	2	3	4	5	6
32	I don't feel my efforts are rewarded the way they should be.	1	2	3	4	5	6
33	I am satisfied with my chances for promotion.	1	2	3	4	5	6
34	There is too much bickering and fighting at work.	1	2	3	4	5	6
35	My job is enjoyable.	1	2	3	4	5	6
36	Work assignments are not fully explained.	1	2	3	4	5	6

Appendix F

Permission to Use the JSS Instrument from Paul E. Spector.

Email to Dr. Spector Requesting Permission to Use the JSS Instrument

From: Callahan, Natalia
Sent: Wednesday, March 30, 2011 10:02 AM
To: spector@shell.cas.usf.edu
Subject: Permission to use instrument

Dear Dr. Spector:

I am writing this letter to request permission to use the Job Satisfaction Survey (JSS) in my dissertation. I am pursuing a Doctor of Philosophy Degree in Educational Leadership at the University of Nevada, Reno. I would like your permission to use the JSS for my study. My dissertation committee advisor is Dr. Janet Usinger. My dissertation topic is *Job Satisfaction of High School Teachers in Washoe County School District*.

The [REDACTED] is [REDACTED] second largest school district serving the [REDACTED] and surrounding areas. I'm currently targeting 10 of their high schools, excluding any charter or private schools.

If you need me to provide any additional information, please contact me via email at NCallahan@Washoe.k12.nv.us or by phone at (775) 354-9405. Please let me know if this would be acceptable. Thank you for your assistance, and I look forward hearing from you.

Educationally Yours,

Natalia Callahan

Natalia Callahan
 College of Education
 University of Nevada, Reno
 PhD Candidate

Email from Dr. Spector Granting Permission

From: Spector, Paul [pspector@usf.edu]
Sent: Wednesday, March 30, 2011 10:04 AM
To: Callahan, Natalia
Subject: RE: Instrument

Dear Natalia:

You have my permission to use the JSS in your research. You can find details about the scale in the Scales section of my website. I allow free use for noncommercial research and teaching purposes in return for sharing of results. This includes student theses and dissertations, as well as other student research projects. Copies of the scale can be reproduced in a thesis or dissertation as long as the

copyright notice is included, "Copyright Paul E. Spector 1994, All rights reserved." Results can be shared by providing an e-copy of a published or unpublished research report (e.g., a dissertation).

Thank you for your interest in the JSS, and good luck with your research.

Best,

Paul Spector
Department of Psychology
PCD 4118
University of South Florida
Tampa, FL 33620
813-974-0357
pspector [at symbol] usf.edu
<http://shell.cas.usf.edu/~spector>

Appendix G

Spector's Job Satisfaction Survey for items rearranged by subscale.

Subscale	Item #	Wording direction	Item
1 Pay	1	+	I feel I am being paid a fair amount for the work I do.
	10	-	Raises are too few and far between.
	19	-	I feel unappreciated by the organization when I think about what they pay me.
2 Promotion	28	+	I feel satisfied with chances for salary increases.
	2	-	There is really too little chance for promotion on my job.
	11	+	Those who do well on the job stand a fair chance being promoted.
	20	+	People get ahead as fast here as they do in places.
3 supervision	33	+	I am satisfied with my chances for promotion.
	3	+	My supervisor is quite competent in doing his/her job.
	12	-	My supervisor is unfair to me.
	21	-	My supervisor shows too little interest in the feelings of subordinates
4 Fringe Benefits	30	+	I like my supervisor.
	3	-	I am not satisfied with the benefits I receive.
	13	+	The benefits we receive are as good as most other organizations offer.
	22	+	The benefit package we have is equitable.
5 Contingent reward	29	-	There are benefits we do not have which we should have.
	5	+	When I do a good job, I receive the recognition for it that I should receive.
	14	-	I do not feel that the work I do is appreciated.
	23	-	There are few rewards for those who work here.
6 Operating procedures	32	-	I don't feel my efforts are rewarded the way they should be.
	6	-	Many of our rules and procedures make doing a good job difficult.
	15	+	My efforts to do a good job are seldom blocked by red tape.
	24	-	I have too much to do at work.
7 Coworkers	31	-	I have too much paperwork.
	7	+	I like the people I work with.
	16	-	I find I have to work harder at my job than I should because the incompetence of people I work with.
8 Nature of work	25	+	I enjoy my coworkers.
	34	-	There is too much bickering and fighting at work.
	8	-	I sometimes feel my job is meaningless
	17	+	I like doing the things I do at work.
9 Communication	27	+	I feel a sense of pride in doing my job.
	35	+	My job is enjoyable
	9	+	Communication seems good within this organization.
	18	-	The goals of this organization are not clear to me.
	26	-	I often feel that I do not know what is going on with the organization.
	36	-	Work assignments are often not fully explained.

Appendix H

Institutional Review Board Approval Certification



University of Nevada, Reno

Office of Human Research Protection
 205 Ross Hall / 331, Reno, Nevada 89557
 775.327.2368 / 775.327.2369 fax
 www.unr.edu/ohrp

Certification of Approval for Modifications
Social Behavioral Institutional Review Board

Date: November 3, 2011
 To: Janet Usinger, PhD College of Education
 Copy: Natalia Callahan

UNR Protocol Number: S12-024
 Protocol Title: An Examination of Job Satisfaction among Urban High School Teachers
 Type of Review: Expedited 7 Minimal risk
 Approval Period: October 21, 2011 to October 20, 2012

This approval is for:

Receipt of [redacted] approval

Approved number of subjects: 630

The above-referenced protocol was reviewed and approved by one of UNR's Institutional Review Boards in accordance with the requirements of the Code of Federal Regulations on the Protection of Human Subjects (45 CFR 46 and 21 CFR 50 and 56).

PI Responsibilities

- Maintain an accurate and complete protocol file.
- Submit continuing projects for review and approval prior to the expiration date.
- Submit proposed changes for review and approval prior to initiation, except when necessary to eliminate apparent immediate hazards to subjects. Such exceptions must be reported to the IRB at once.
- Report any unanticipated problems which may increase risks to human subjects or unanticipated adverse events to the IRB within 5 days.
- Submit a closure request 10 days after project completion to the IRB.

Reference the protocol number on all related correspondence with the IRB. If you have any questions, please contact Valerie Smith at 775.327.2368.

For Veteran's Administration research only

VA Research: No
 Flag VA Medical Record: N/A

Appendix I

Letter of Permission from the Office of Accountability



Research Request Approval

November 2, 2011

Name of Proposed Study: An Examination of Job Satisfaction Among Urban High School Teachers
Affiliation: UNR
Principal Investigators: Janet Usinger, Natalia Callahan

Please be advised that approval to conduct the requested research has been granted by Public Policy, Accountability and Assessment with these five conditions:

1. Participation by any student, any teacher, any administrator, or any school is voluntary.
2. The identity of students, teachers, administrators, and schools shall not be revealed in the report of the study, except by written permission of this office provided in advance to the investigator(s). That is, student, teacher, and administrator anonymity shall be assured in the research project.
3. The results of the study shall not be used for any purpose other than that specified in the request, except by written permission of this office.
4. A copy of the report of the study shall be filed with this office and with the principal of any school that has participated in the study.
5. The study must conform to the federal [Family Education Rights and Privacy Act \(FERPA\)](#), all federal regulations dealing with [Protection of Human Subjects](#) and the [Washoe County School District Administrative Regulations 5125.1 and 5125.3](#).

Approval to conduct this study within the Washoe County School District expires:

November 1, 2012

Appendix J

Introductory Email Requesting High School Principal Participation

Hello Principals,

My name is Natalia Callahan and I am a doctoral candidate in the Educational Leadership Department in the College of Education at UNR. I am also a math teacher in Washoe County School District at Hug HS. I am writing to you to ask for your assistance in the collection of data for my research.

The purpose of my study is to explore the job satisfaction of teachers who work in urban high schools. This will be done through the use of the Job Satisfaction Survey (JSS) in conjunction with a Demographic Questionnaires to be completed by the high school teachers in the study.

Permission to administer this survey has been approved from the WCSD Office of Accountability and Performance in addition to the Institutional Review Board (IRB) for research with human subjects of The University of Nevada, Reno.

A pilot study was conducted at a local charter school and it took teachers approximately **20 minutes** to complete.

I will be sending out a formal email on Tuesday, November 15th to notify you of this process.

If you have additional questions in the meantime, please feel free to contact me at (775) 354-9405 or NCallahan@WashoeSchools.net.

Thank you in advance for your time, cooperation, and support.

Educationally Yours,

Natalia Callahan

Natalia Callahan
College of Education
University of Nevada, Reno
PhD Candidate

Appendix K

Formal Invitation Requesting High School Principal Participation

Dear High School Principal:

Your staff members are invited to participate in a research study being conducted by a doctoral candidate from University of Nevada, Reno.

My name is Natalia Callahan and I am a doctoral candidate in the Educational Leadership Department in the College of Education at UNR. I am also a math teacher in Washoe County School District. I am writing to you to ask for your assistance in the collection of data for my research.

The purpose of my study is to explore the job satisfaction of teachers who work in urban high schools. This will be done through the use of the Job Satisfaction Survey (JSS) in conjunction with a Demographic Questionnaires to be completed by the high school teachers in the study.

Permission to administer this survey has been approved from the Institutional Review Board (IRB) for research with human subjects of The University of Nevada, Reno. The same permission was granted from the Office of Accountability and Performance in Washoe County School District.

A designated individual will be assigned at your school site to distribute and collect the surveys. He/she is certified the Collaborative Institutional Training Initiative (CITI) program in the protection of human research subjects for social/behavioral research. All materials that are completed will be kept confidential and secure by the researcher. Participation in this research will be held in strict confidence. Only a code number will be used for identification purposes of the school location.

The two part survey takes less than 20 minutes to complete, and the resulting data will be available to those that are interested.

The administration of the survey would be preferable during either the beginning or end of the regularly scheduled, mandatory professional development on Wednesdays.

As an active member of this school community, the willingness of your staff members' experience, perceptions, reflections, input, ideas, and knowledge in this area can contribute richly and significantly to this study.

If you would like more information on this study, please feel free to contact me at any time at (775) 354-9405. In addition, you may contact my dissertation chair, Dr. Janet Usinger, at the University of Nevada, Reno at (775) 682-9083.

Thank you in advance for your time, cooperation, and support.

Educationally Yours,

Natalia Callahan

Natalia Callahan
College of Education
University of Nevada, Reno
PhD Candidate

Appendix L

Job Satisfaction Instrument Script

INSTRUCTIONS

HS Job Satisfaction Survey 2011-2012

The following administrative procedures must be followed as closely as possible. It is critical to the reliability and validity of the research study that participants and facilitators adhere to these guidelines.

Dear fellow high school teachers,

Research is being conducted to investigate the job satisfaction among high school teachers in Washoe County School District and you are invited to participate in this education study.

Since a full sample is required for representative results, we encourage your participation in the survey. Your participation in this research is confidential. Your answers to this survey are voluntary and completely anonymous. Your name will not be used in any way. To ensure confidentiality, you are not asked to provide your name. No coding will be undertaken other than separating the surveys by school. In the event of publication of this research, no personally identifying information will be disclosed. Permanent storage of surveys will be in the room 4056 of the Raggio Education Building at UNR.

The two part survey takes less than 20 minutes to complete, and the resulting data will be available to those that are interested. Thank you for your valuable contribution.

Please try to answer all items honestly and not collaborate with colleagues when responding to questionnaire items.

If you have any questions at any time about this study, you may contact the researcher, Natalia Callahan at (775) 354-9405. In addition, you may contact her dissertation chair, Dr. Janet Usinger, at the University of Nevada, Reno at (775) 682-9083.

At this time, I will ask the principal and personnel of any administrative roles to leave the room while the surveys are being completed. Writing utensils will be provided if you need them. When you're done, please bring your survey up to the front of the room and place it in the box.

As an active member of this school community, the willingness to participate in this area can contribute richly and significantly to this study. Thank you for participating!

Appendix M

All Survey Items for the Codebook

Column	Full Variable Name	SPSS Variable Name	Key	Level 1	Level 2	Level 3
1 to 3	Identification number	ID	continuous			
	10 Schools	Sch	discrete			
4	Gender	Gndr	discrete	1=Male	2=Female	
5	Age group	Age	discrete	1=21-30	2=31-40	3=41+
6	Ethnicity	Etn	discrete	1=white	2=Non-white	
7	Marital status	MaSt	discrete	1=Married	2=Not married	
8	Highest education	Edu	discrete	1=Bachelor	2=Bachelors + Graduate Credit	3=Graduate Degree
9	National board certified	Nbpts	discrete	1=Yes	2=No	
10	Subject taught	Sub	discrete	1=Academic	2=Non-academic	
11	Salary	Sal	discrete	1=30,000-40	2=40,001-50	3=50,001+
12	Total years of experience	YrExp	discrete	1= 0-5	2= 6-15	3=15+
13	Number of different schools	DiffSch	discrete	1=1School	2=2-3	3=3+
14	Pay*	PA	continuous	4 to 24		

15	Promotion*	PR	continuous	4 to 24
16	Supervision*	SU	continuous	4 to 24
17	Fringe Benefit*	FB	continuous	4 to 24
18	Operating Procedures*	OP	continuous	4 to 24
19	Contingent Reward**	CR	continuous	4 to 24
20	Coworker**	CO	continuous	4 to 24
21	Nature of Work**	NW	continuous	4 to 24
22	Communication**	CM	continuous	4 to 24
23	Extrinsic JS Mean	EM	continuous	20-120
24	Intrinsic JS Mean	IM	continuous	16-96
25	Overall Job Satisfaction	JS	continuous	36 to 216
26	New Intrinsic Mean After Transformation	newIM	continuous	16-96

* **Extrinsic Subscale**

****Intrinsic Subscale**

Appendix N

Case Processing Table for Missing Data

	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Mahalanobis Distance	449	100.0%	0	.0%	449	100.0%

Appendix O

Chi Square Table (Sharov, 1996)

df	P = 0.05	P = 0.01	P = 0.001
1	3.84	6.64	10.83
2	5.99	9.21	13.82
3	7.82	11.35	16.27
4	9.49	13.28	18.47
5	11.07	15.09	20.52
6	12.59	16.81	22.46
7	14.07	18.48	24.32
8	15.51	20.09	26.13
9	16.92	21.67	27.88
10	18.31	23.21	29.59
11	19.68	24.73	31.26
12	21.03	26.22	32.91
13	22.36	27.69	34.53
14	23.69	29.14	36.12
15	25.00	30.58	37.70
16	26.30	32.00	39.25
17	27.59	33.41	40.79
18	28.87	34.81	42.31
19	30.14	36.19	43.82
20	31.41	37.57	45.32
21	32.67	38.93	46.80
22	33.92	40.29	48.27
23	35.17	41.64	49.73
24	36.42	42.98	51.18
25	37.65	44.31	52.62
26	38.89	45.64	54.05
27	40.11	46.96	55.48
28	41.34	48.28	56.89
29	42.56	49.59	58.30
30	43.77	50.89	59.70

Appendix P

Extreme Values Table for Extrinsic JS Mean and Intrinsic JS Mean.

		Case Number		Value
Mahalanobis Distance	Highest	1	277	23.77499
		2	22	23.74991
		3	242	22.84958
		4	100	11.94131
		5	294	11.41551
	Lowest	1	203	.00708
		2	75	.00915
		3	184	.01508
		4	389	.01594
		5	201	.01726

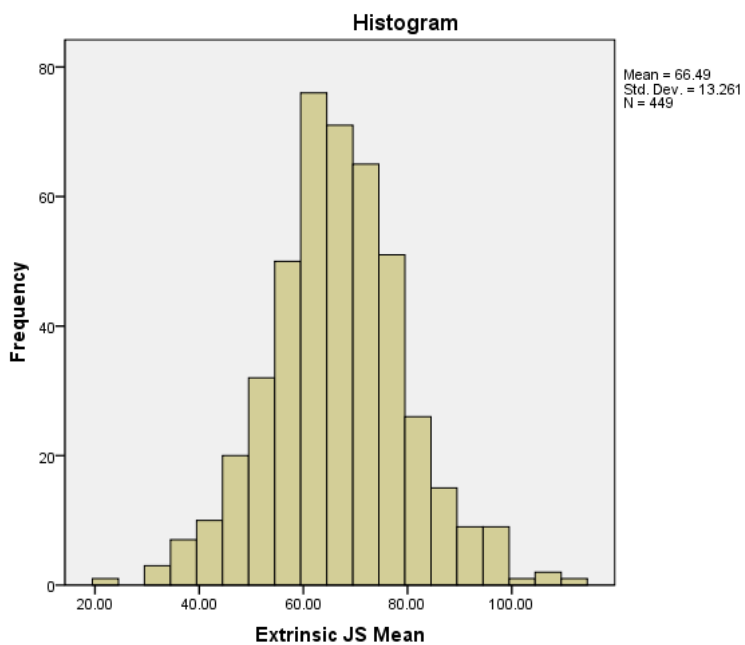
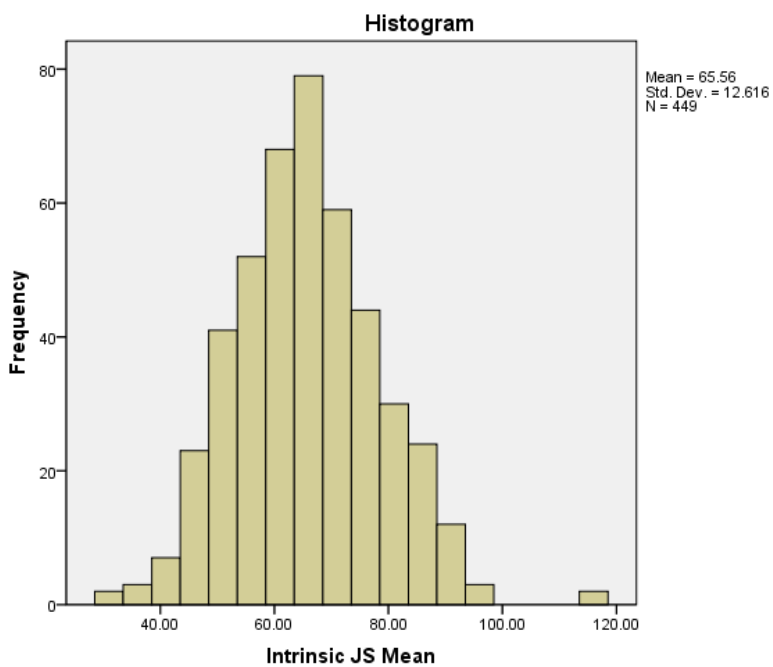
Appendix Q

Descriptive Statistics for Extrinsic JS Mean after Intrinsic JS Mean.

		Statistic	Std. Error
Extrinsic	Mean	66.4944	.62582
JS Mean	95% Confidence Interval for	Lower Bound	65.2645
	Mean	Upper Bound	67.7243
	5% Trimmed Mean	66.3962	
	Median	66.0000	
	Variance	175.849	
	Std. Deviation	13.26080	
	Minimum	22.00	
	Maximum	114.00	
	Range	92.00	
	Interquartile Range	17.00	
	Skewness	.126	.115
	Kurtosis	.611	.230
Intrinsic	Mean	65.5568	.59540
JS Mean	95% Confidence Interval for	Lower Bound	64.3867
	Mean	Upper Bound	66.7269
	5% Trimmed Mean	65.3813	
	Median	65.0000	
	Variance	159.171	
	Std. Deviation	12.61632	
	Minimum	31.00	
	Maximum	118.00	
	Range	87.00	
	Interquartile Range	17.00	
	Skewness	.311	.115
	Kurtosis	.612	.230

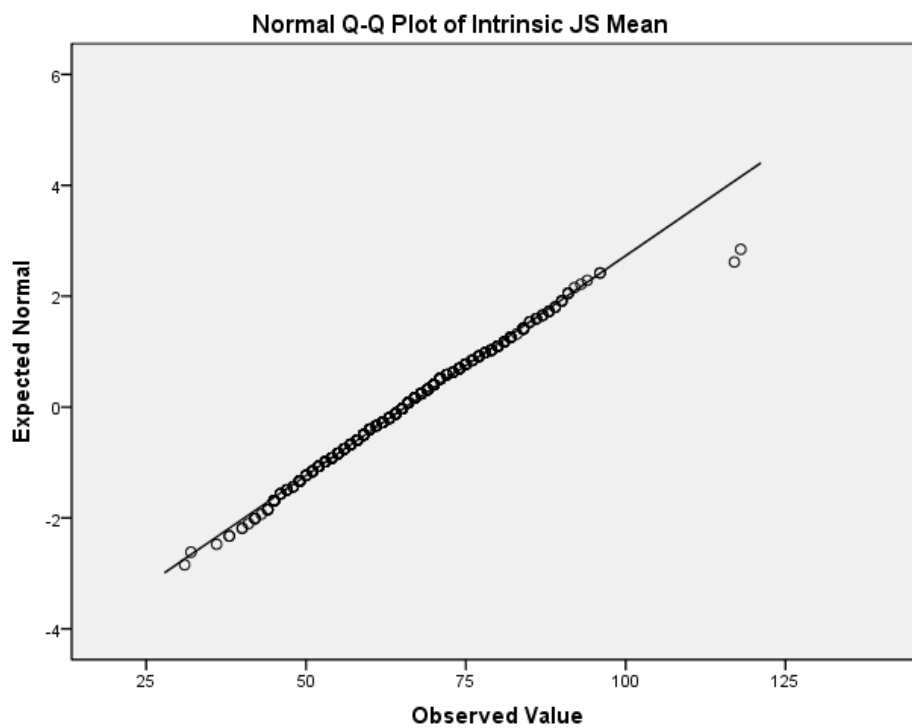
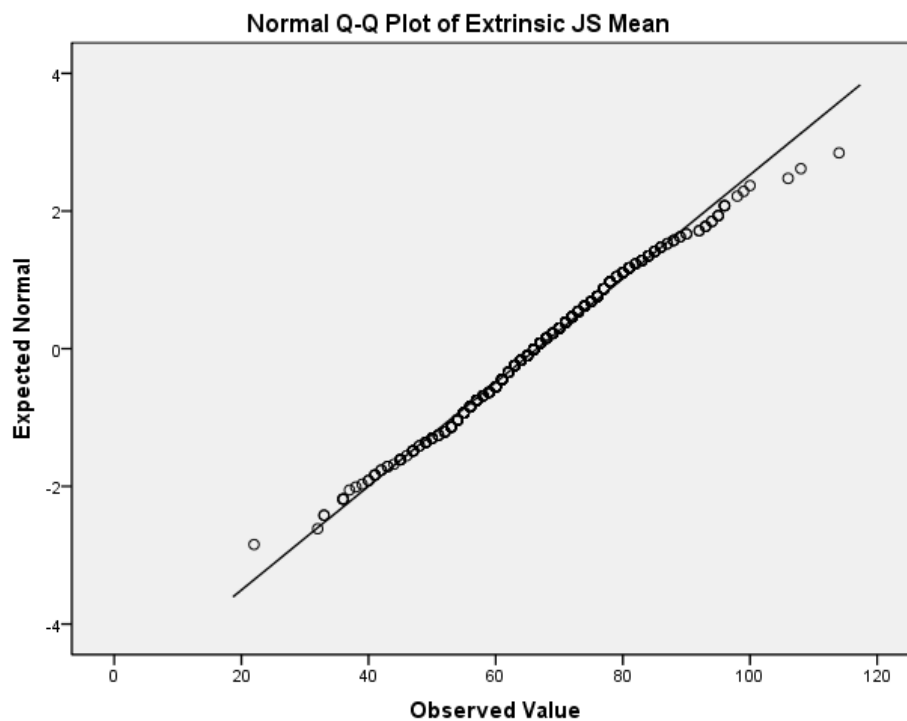
Appendix R

Histograms for Extrinsic JS Mean after Intrinsic JS Mean

Extrinsic JS Mean**Intrinsic JS Mean**

Appendix S

Normal Q-Q Plots for Extrinsic JS Mean and Intrinsic JS Mean.



Appendix T

Tests for Normality for Intrinsic JS Mean

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Extrinsic JS Mean	.039	449	.097	.994	449	.059
Intrinsic JS Mean	.048	449	.015	.990	449	.005

a. Lilliefors Significance Correction

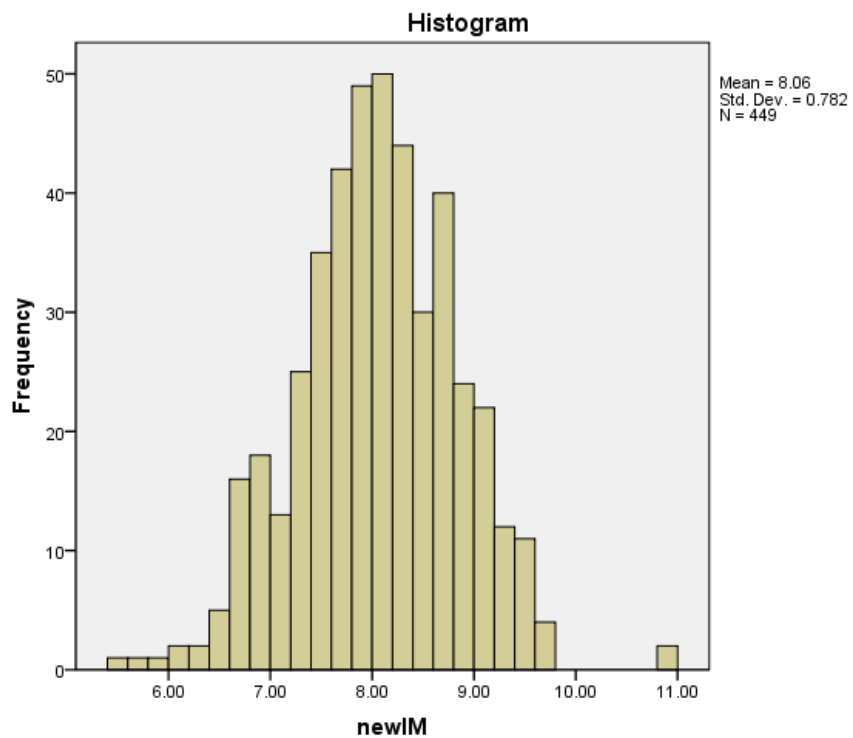
Appendix U

Descriptive Statistics for newIM after transformation.

			Statistic	Std. Error
newIM	Mean		8.0590	.03689
	95% Confidence Interval for	Lower Bound	7.9865	
	Mean	Upper Bound	8.1315	
	5% Trimmed Mean		8.0624	
	Median		8.0623	
	Variance		.611	
	Std. Deviation		.78164	
	Minimum		5.57	
	Maximum		10.86	
	Range		5.30	
	Interquartile Range		1.05	
	Skewness		-0.026	.115
	Kurtosis		3.01	.230

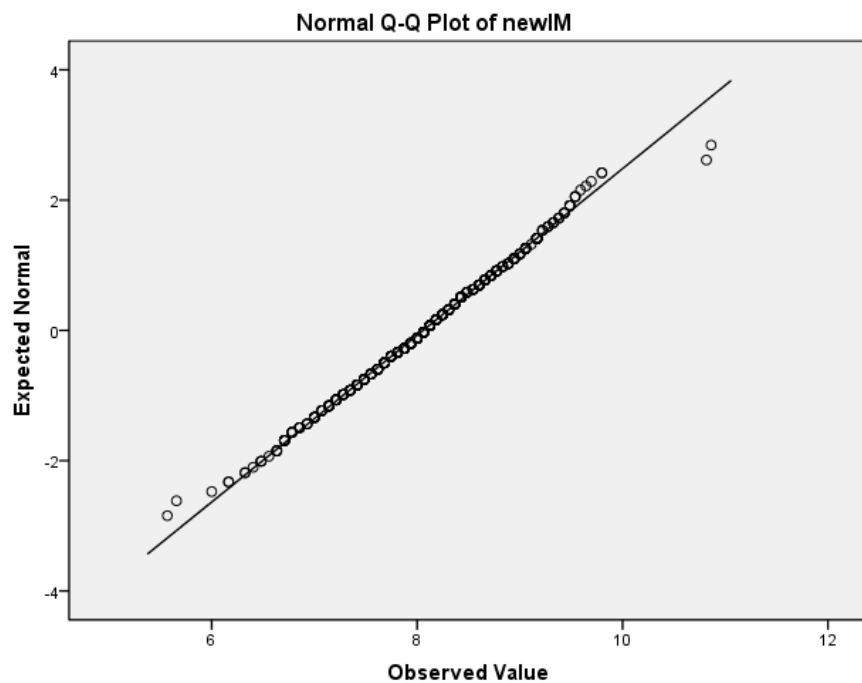
Appendix V

Histograms for newIM after transformation.

newIM

Appendix W

Normal Q-Q Plots for newIM after transformation.



Detrended Normal Q-Q Plot of newIM

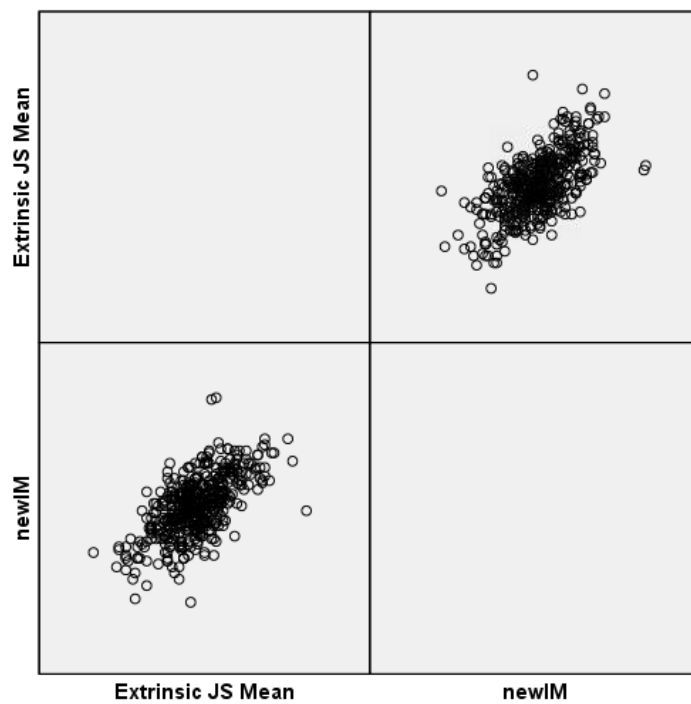
Appendix X

Tests for Normality for newIM after transformation.

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
newIM	.034	449	.200*	.996	449	.244

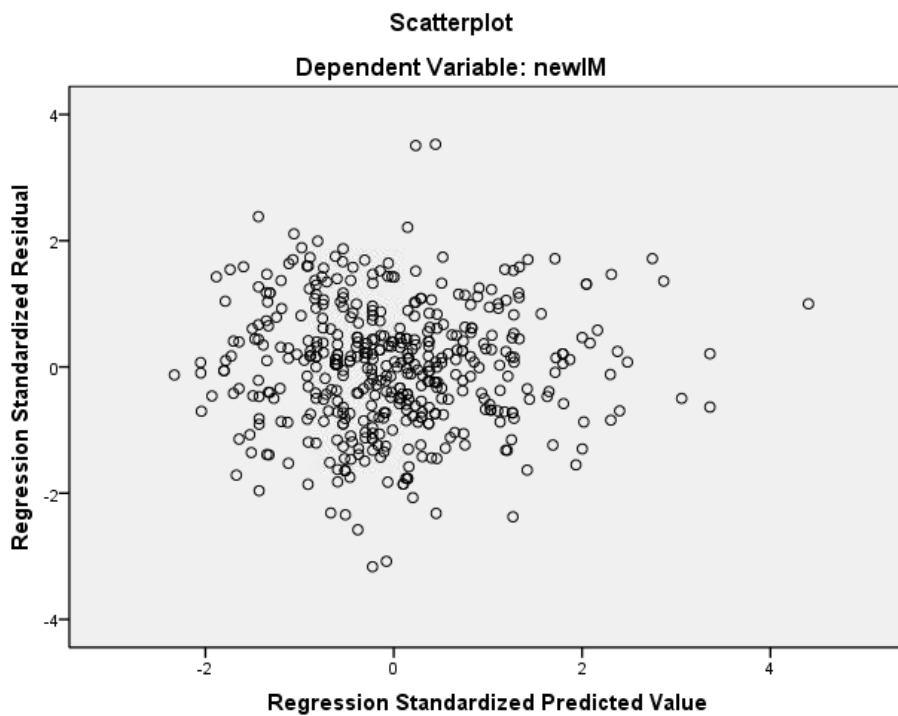
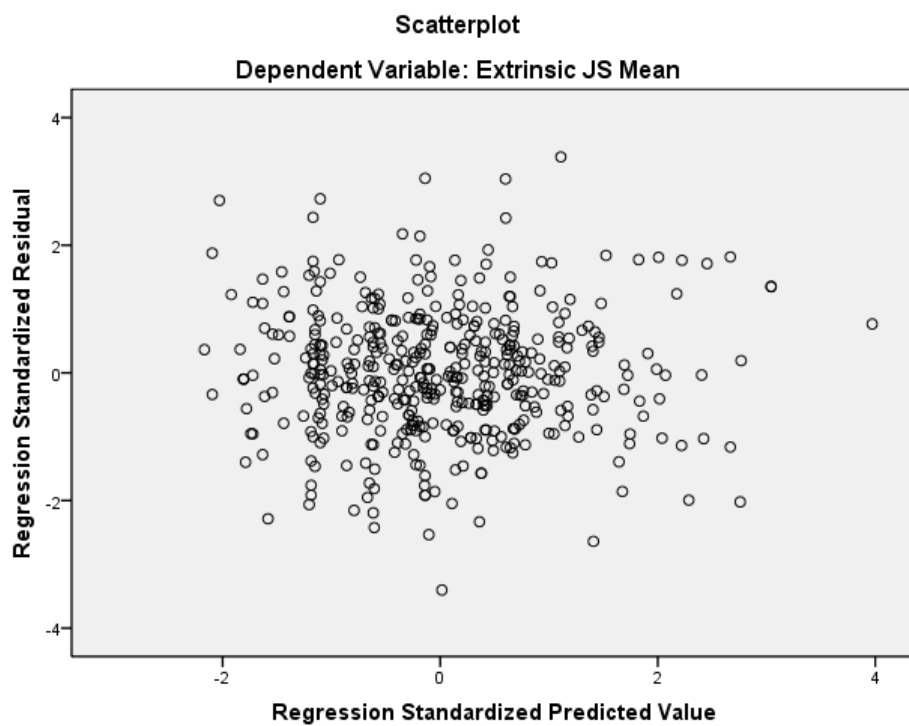
Appendix Y

Scatter plot Matrix of EM and newIM.



Appendix Z

Scatter plot of Standardized Predicted Values by Standardized Residuals.



Appendix AA

Steps Taken to Analyze the Multivariate Data

Null Hypothesis	Box's Test of Equality of Covariance Matrices <ul style="list-style-type: none"> ✓ If sig >.05 → not sig, homogeneity of covariance assumed or NOT VIOLATED. ✓ Use Wilks' Lambda when interpreting multivariate test ➤ If sig <.05 → Sig, homogeneity of covariance NOT assumed or VIOLATED. ➤ Use Pillai's Trace when interpreting multivariate test 	Multivariate test used (Wilks' Lambda or Pillai's Trace) → Significance?	Post Hoc – Bonferroni. Refer to “Tests of Between Subjects Effects.” → significant?	Reject or Failed to Reject the Null Hypothesis
Null Hypothesis 1.1 – There is no difference between Gender groups for the intrinsic and extrinsic means of job satisfaction.	Sig = .707. Homogeneity of covariance is ASSUMED & NOT violated.	Wilks' Lambda Sig = .735. Not significant. $\eta^2 = .001$	STOP	Failed to Reject the Null Hypothesis
Null Hypothesis 1.2 – There is no difference among Age Group groups for the intrinsic and extrinsic means of job satisfaction.	Not violated. Sig = .142, not significant but yes homogenous of covariance is assumed.	Wilks' Lambda Significance = .012. Significant! $\eta^2 = .012$	Intrinsic mean is significantly difference (.041) → LSD revealed differences between ages 21-30 & 31-40 (sig =.016).	Reject the Null Hypothesis
Intrinsic 21-30 (M=8.22) & 31-40 (M=7.95)				
Null Hypothesis 1.3 – There is no difference between Ethnicity groups for the intrinsic and extrinsic means of job satisfaction.	Not violated. Sig = .500, not significant but yes homogenous of covariance is assumed.	Wilks' Lambda Sig = .802. Not significant. $\eta^2 = .001$	STOP	Failed to Reject the Null Hypothesis
Null Hypothesis 1.4 – There is no	Sig = .110. Homogeneity of	Wilks' Lambda Sig	STOP	Failed to Reject the Null

difference between Marital Status groups for the intrinsic and extrinsic means of job satisfaction.	covariance is ASSUMED & NOT violated.	= .506. Not significant. $\eta^2 = .003$		Hypothesis
Null Hypothesis 1.5 – There is no difference among Highest Level of Education groups for the intrinsic and extrinsic means of job satisfaction.	Not violated. Sig = .470, not significant but yes homogenous of covariance is assumed.	Wilks' Lambda Significance < .001. Significant! $\eta^2 = .025$	Extrinsic mean is significantly difference (<.001) → LSD revealed differences between BA & BA+GradCredit (<.001); BA & grad (<.001). Intrinsic mean is significantly difference (<.001) → LSD revealed differences between BA&BA+GradCredit (<.001); BA & grad (<.001).	Reject the Null Hypothesis
<p>Extrinsic BA (M = 75.05) & BA+GradCredit (M = 65.05); BA (M =75.05) & grad (M = 65.97). Intrinsic BA (M = 8.56) & BA+GradCredit (M = 7.99); and BA (M =8.56) & grad (M = 8.02).</p>				
Null Hypothesis 1.6 – There is no difference between National Board Certified groups for the intrinsic and extrinsic means of job satisfaction.	Sig = .321. Homogeneity of covariance is ASSUMED & NOT violated.	Wilks' Lambda Sig = .486. Not significant. $\eta^2 = .003$	STOP	Failed to Reject the Null Hypothesis
Null Hypothesis 1.7 – There is no difference between Subject Taught groups for the intrinsic and extrinsic means of job satisfaction.	Sig = .149. Homogeneity of covariance is ASSUMED & NOT violated.	Wilks' Lambda Sig = .102. Not significant. $\eta^2 = .010$	STOP	Failed to Reject the Null Hypothesis
Null Hypothesis 1.8 – There is no difference among Salary groups for the intrinsic and	Not violated. Sig = .830, not significant but yes homogenous of covariance is assumed.	Wilks' Lambda Significance = .005. Significant!	Intrinsic mean is significantly different (.001) → LSD revealed differences between \$30-\$40,000 & \$40,001-	Reject the Null Hypothesis

extrinsic means of job satisfaction.		$\eta^2 = .016$	\$50,000(.003). Intrinsic mean is significantly difference (.011) → LSD revealed differences between \$30-\$40,000 & \$40,001-\$50,000 (.001); and \$40,001-\$50,000 & \$50,000 (.015).	
Extrinsic \$30-\$40,000 (M = 69.41) & \$40,001-\$50,000(M = 64.67). Intrinsic \$30-\$40,000 (M = 8.23) & \$40,001-\$50,000 (M = 7.91); and \$40,001-\$50,000 (M = 7.91) & \$50,000+ (M = 8.12).				
Null Hypothesis 1.9 – There is no difference among Total Years of Teaching Experience groups for the intrinsic and extrinsic means of job satisfaction.	Not violated. Sig = .449, not significant but yes homogenous of covariance is assumed.	Wilks' Lambda Significance = .002. Significant! $\eta^2 = .019$	Extrinsic mean is significantly difference (.002) → LSD revealed differences 0-5 & 6-15(.003); and 0-5 & 15+ (.001). Intrinsic mean is significantly difference (.003) → LSD revealed differences between 0-5 & 6-15 (.001); and 0-5 & 15+ (.011).	Reject the Null Hypothesis
Extrinsic 0-5 (M = 70.98) & 6-15(M = 65.86); and 0-5 (M = 8.31) & 15+ (M = 8.04). Intrinsic 0-5 (M = 8.31) & 6-15 (M = 7.97); 0-5 (M = 8.31) & 15+ (M = 8.04).				
Null Hypothesis 1.10 – There is no difference among Number of Schools Taught groups for the intrinsic and extrinsic means of job satisfaction.	Not violated. Sig = .451, not significant but yes homogenous of covariance is assumed.	Wilks' Lambda Sig = .090. Not significant. $\eta^2 = .009$	STOP	Failed to Reject the Null Hypothesis