New teacher job satisfaction: effects of general job facets and teacher job specific facets.

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NEW TEACHER JOB SATISFACTION: EFFECTS OF GENERAL JOB FACETS AND TEACHER JOB SPECIFIC FACETS

By

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B. S., Grambling State University, 1993
M. Ed., University of Louisville, 1996
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A Dissertation
Submitted to the Faculty of the Graduate School of the University of Louisville in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

Department of Leadership, Foundations, and Human Resource Education
College of Education and Human Development
University of Louisville

December, 2007
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DEDICATION

This dissertation is dedicated to Derwin, Langston, Lawrence, and Nariah. Thank you for your patience and sacrifice. To my mother, father, and all of my extended family; thank you for your unwavering support. Your words of encouragement, prayers, meals, and helping hands have held me up during this journey. I would also like to thank my work family for the encouragement, guidance, and support. I am truly blessed to be surrounded by so many loving, giving, and sharing people. Most importantly, I thank you, Father, for sustaining me. Great is Your faithfulness!
ACKNOWLEDGEMENTS

I would like to thank my program and dissertation chair, Dr. Paul A. Winter. I consider it an honor and privilege to learn from you. I truly appreciate your guidance and support during this process. Thank you for helping me to achieve this goal! I would also like to thank committee members, Dr. John L. Keedy, Dr. Joseph M. Petrosko, Dr. Ann E. Larson, and Dr. Thaddeus Dumas for their time and support throughout this process.
ABSTRACT

NEW TEACHER JOB SATISFACTION: EFFECTS OF GENERAL JOB FACETS AND TEACHER JOB SPECIFIC FACETS

Aimee G. Webb

December 7, 2007

This study addressed the job satisfaction of new teachers in Jefferson County Public Schools (JCPS) in Jefferson County, Kentucky. The JCPS district is the 29th largest in the United States and serves over 98,000 students. Understanding what contributes to the satisfaction and retention of new teachers in a large urban school district has implications for cost effective human resource management and student achievement.

The researcher mailed a district-wide survey questionnaire about new teacher job satisfaction using procedures developed by Dillman (2000). The survey mailing yielded a sample of 630 participants. The researcher computed: (a) descriptive statistics, (b) principal components factor analysis, (c) correlation analysis, and (d) hierarchical multiple regression analysis. The components identified by the factor analysis included:
Preparedness/Ability ($\alpha = .95$), (b) School Leadership ($\alpha = .87$), (c) Independence/Principal Recognition ($\alpha = .84$), (d) Time/Salary ($\alpha = .77$), (e) Co-workers ($\alpha = .84$), (f) Benefits ($\alpha = .73$), (f) Variety ($\alpha = .61$), and Support Equipment/Materials ($\alpha = .65$).

The study addressed personal characteristics of new teacher (e.g., age, ethnicity, gender), cast as control variables and both general job facets (e.g., salary, retirement benefits) and job-specific facets (teacher preparedness/ability, and school leadership) as predictor variables of interest. The dependent variable was a global measure of overall new teacher job satisfaction measured by a two-item additive composite score.

From largest to smallest effect size, the significant predictors were: Preparedness/Ability ($\beta = .59$), Independence/Principal Recognition ($\beta = .19$), Time/Salary ($\beta = .18$), Benefits ($\beta = -.08$), School Leadership ($\beta = -.08$). The linear combination of significant predictor variables explained 71% of the variance in overall job satisfaction. The results of this study inform K-12 administrators relative to improving the job satisfaction and working conditions of new teachers. Implications for administrative practice and future research are discussed.
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CHAPTER I
INTRODUCTION

This study examines the job satisfaction of new teachers in Jefferson County Public Schools (JCPS) in Jefferson County, Kentucky. The JCPS district is the 29th largest in the United States and serves over 98,000 students (Jefferson County Public Schools, 2006). Understanding what contributes to the satisfaction and retention of new teachers in a district of this size has implications for cost effective human resource management and student achievement. For the purposes of this study, the definition of a new teacher is an individual beginning a career as teacher and being employed by JCPS for three years or less. As explained in the Problem Statement later in this chapter, focusing on the job satisfaction of new teachers is important because of the teacher turnover problem that exists nationally. New teachers who experience low job satisfaction often exit the profession of teaching entirely, exacerbating the turnover problem.
Locke (1976) defined job satisfaction as a "pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1,300). Researchers' interest in job satisfaction dates back to the early organizational theorists (Herzberg, 1959; Maslow, 1970; Mayo, 1970; and Taylor, 1970). In his historical overview of job satisfaction, Locke (1976) connected job satisfaction to Frederick Taylor's theory of scientific management and Mayo's Hawthorne Studies through their examination of work-related attitudes.

Taylor (1970) explained scientific management as an evolution of the mental attitude of the worker and those in management. Although Taylor's focus was on increasing worker productivity, he acknowledged the role of attitudes such as work satisfaction with the job. Mayo's (1970) examination of the Hawthorne Studies explored worker dissatisfaction with working conditions and the use of incentives to increase employee productivity. The relevance of worker attitudes also surfaced in these studies.

Locke (1976) also identified Robert Hoppock's (1935) study as the first intensive job satisfaction study published. His study, which included 500 schoolteachers, identified six factors that related to job satisfaction: (a) the individual's reaction to an unpleasant situation;
(b) the way the employee behaves in interacting with other employees; (c) the social and economic status with which a person identifies; (d) the nature of the work in relation to the person's abilities, interests, and preparation; (e) security; and (f) loyalty to the organization. Hoppock believed that a genuine sense of loyalty, divorced from all thought of duty, indulged in because one enjoys the service, enables a man to endure with amazing indifference, even with pleasure, hardships far beyond anything the average worker encounters from day to day (1935. p. 283).

In other words, a teachers' sense of loyalty and commitment to service could cause them to continue working for an organization even though working conditions are less than optimal. Hoppock's study was among the first in the education literature to address factors that could affect the job satisfaction of educators.

The Job of Teacher

The job of the classroom teacher, though rewarding for many, is complex. Factors affecting teacher working conditions include: class size, availability of teaching resources, participation in decision-making, classroom facilities, administrator support, and high-stakes

1. Meets and instructs assigned classes in the locations and at the times designated.

2. Creates and maintains a classroom environment that is conducive to learning and appropriate to the maturity and interests of students.

3. Guides the learning process toward the achievement of curriculum goals and establishes objectives for all lessons, units, projects, and the like in order to communicate these objectives to students.

4. Employs instructional methods and materials that are appropriate for meeting stated objectives, prepares for classes, and maintains written evidence of preparation.

5. Assists the administration in implementing Board policies, administrative regulations and school rules governing student life and conduct, develops reasonable rules of classroom behavior and procedure, and maintains order in the classroom in a fair and just manner.
6. Assesses the accomplishments of students on a regular basis and provides progress reports and counseling to parents as required concerning academic and behavioral progress of all assigned students.

7. Participates in parent/teacher conferences as necessary to assist the parent's participation and support of a child's education.

8. Maintains accurate, complete and correct records as required by law, district policy, and administrative regulation.

9. Continues personal professional growth and upgrading of skills appropriate to teaching assignments.

10. Attends staff meetings, serves on staff committees, and accepts a share of responsibility for extracurricular activities.

11. Duties may include performance of health services, for which training will be provided.

12. Performs other duties as assigned by the principal or school center head.

Teachers spend 50 to 53 hours per week preparing for work (Leithwood, 2007). Nearly half of that time may be spent on non-instructional tasks (Dibbon, 2004). Bunting
(2006, p. 12), in her description of teaching, explained that "[e]ach day typically progresses in such a skill jammed, test-locked, other-directed format that teachers have little room for experiencing satisfaction or for having constructive thoughts about their work." A recent commentary published by the National Association of Elementary School Principals stated that, "While most teachers choose to enter the profession to make a difference in the lives of children, they may quickly begin to feel a sense of isolation and disenchantment that discourages them from staying" ("Support New", 2005, p. 41). Leithwood (2007) connected the complexity of a teacher's work to feelings of stress, morale, and commitment. He further explained that the complexity of the job of teaching increases when teachers are required to teach in areas which they are not prepared.

The job of the teacher is even more complicated during the first years of employment. In Kentucky, not only are new teachers faced with the traditional challenges of teaching; they must also successfully complete a one-year internship within the first four years of completing a teacher preparation program. New teachers must demonstrate that they have met all of the state's nine New Teacher Standards in order to receive a full teaching license (KRS
The Kentucky New Teacher Standards (Kentucky Education Professional Standards Board, 1999) are:

1. Designs and Plans Instruction
2. Creates and Maintains a Learning Climate
3. Implements and Manages Instruction
4. Assess and Communicates Learning Results
5. Reflects Upon and Evaluates Teaching and Learning
6. Collaborates with Colleagues, Parents, and Others
7. Evaluates His/Her Teaching Performance and Implements a Professional Development Plan
8. Demonstrates Applied Content Knowledge
9. Demonstrates the Use of Technology

Teaching in a Reform Era

The present state of educational reform adds additional factors with which new teachers must contend. The federal No Child Left Behind Act (NCLB) of 2001 instituted a mandated accountability system of tracking student achievement. The requirements of NCLB placed emphasis on students making academic progress as measured by standardized tests and on teachers making decisions about instruction based on assessment data. Some critics argue that the attention given to test scores causes teachers to lose confidence and creativity with regard to teaching (Bunting, 2006). Further, NCLB requires that every
teacher be highly qualified. According to NCLB, all teachers of core content subjects must meet minimum requirements established by each state (U. S. Department of Education, 2007). The core content subjects include English, reading/language arts, mathematics, science, foreign languages, civics and government, economics, history, geography, and arts. In Kentucky, teachers who meet the state’s minimum standards for full state certification meet the federal definition of a highly qualified teacher. This roughly translates into all teachers holding a bachelor’s degree from a regionally accredited university in an approved program of study and passing the required licensure exams for the academic area of certification. This requirement, while not directly influencing the new teacher, has placed additional pressure on the recruitment and retention efforts of school districts seeking to obtain and maintain the highly qualified status for its teaching cadre.

Problem Statement

Hulin, Roznowski, and Hachiya (1985) presented a heuristic model explaining the inputs and outcomes of job satisfaction. The outcomes occur as adaptations. Adaptations play a distinct role in an individual’s
response to a situation. Roznowski and Hulin (1992) explain that,

people change and adapt their behavioral repertoires both to fit the contingencies and constraints in the particular organizational situation and to provide themselves with the maximum possible satisfying outcomes or the fewest dissatisfying outcomes... the most interesting forms of adaptation are likely to occur for individuals with extreme levels of affect toward their jobs - that is, individuals who are highly dissatisfied or satisfied with their work roles (p. 129).

Adaptations include psychological and behavioral job withdrawal. Psychological job withdrawal includes missing meetings, taking extended breaks from work, and wandering around looking busy. Behavioral job withdrawal includes permanent choices such as absenteeism, turnover, and retirement. Teacher turnover is an area of concern for school administrators wishing to maintain a highly qualified, consistent workforce.

K-12 teachers represent 4% of U. S. civilian workforce (Ingersoll & Smith, 2003). Of this 4%, almost half leave the profession within the first five years. Nearly 30% of those who left the profession cited job dissatisfaction as the main reason. Darling-Hammond & Sykes (2003) reported that the annual outflow of teachers exceeded the influx since the early 1990s. In 1999, the outflow exceeded the influx by 55,000. Further, teacher
turnover is 50% higher in high-poverty schools and urban settings (Ingersoll, 2001) than in wealthier non-urban school districts. High turnover of teachers indicates underlying problems in the school and can be disruptive to the quality of the school and delivery of educational programs (Ingersoll, 2001).

Teacher turnover results in staffing problems and warrants an examination of the organizational factors that might contribute to turnover. Ingersoll (2001) called for an examination of turnover at the organizational level in order to understand teacher turnover and staffing problems. Education leaders attentive to teacher turnover issues could identify contributing organizational factors and implement policy or structural changes to address the problem. Organizational adjustments, such as improved working conditions and teacher job satisfaction, that result in decreased turnover have the potential to improve teacher job satisfaction and student achievement. Districts use fiscal resources to recruit and provide support for new teachers. When the new teachers leave, the district does not reap the benefit of this financial investment. The Texas Center for Educational Research (2000) calculated the cost of loosing a newly hired teacher in the first few years of employment to be $8,000.
Although there is existing research about teacher job satisfaction, empirical studies specifically addressing the job satisfaction of new teachers do not exist in the job satisfaction literature. Ingersoll (2001) explained that previous research overlooked the relationship between organizational conditions and turnover. He further explained that while teacher retirements contributed to the current shortage of public school teachers, teacher job dissatisfaction accounted for considerably more teacher turnover than did retirements.

Purpose

The purpose of this study is to add to the educational job satisfaction literature by addressing the focal position of new teachers. This study addresses the call by Loeb, Darling-Hammond and Luczak (2005) to systematically examine the influence of personal and organizational characteristics related to teacher turnover. One objective is to develop a job satisfaction instrument that focuses on the unique characteristics associated with the job of a new teacher in a large urban school district. The study addresses the influence of personal characteristics, cast as control variables, on overall new teacher job satisfaction and the impact of new teacher satisfaction with general job facets cast as predictor variables on
overall new teacher job satisfaction. Finally, the research seeks to determine the impact of new teacher satisfaction with job-specific facets, cast as predictor variables, on overall new teacher job satisfaction.

Research Questions

The study of new teacher job satisfaction and the effects of general and new teacher job-specific facets will address the following research questions for this study:

1. Do the new teacher ratings of job satisfaction vary according to new teacher personal characteristics?

2. Do the new teacher ratings of job satisfaction vary according to general job facets?

3. Do the new teacher ratings of job satisfaction vary according to the new teacher job-specific facets?

Hypotheses

The primary analytical technique used in this correlation study is hierarchical multiple regression. The overall null hypothesis associated with the amount of observed variance in overall new teacher job satisfaction for the regression equation is (Cohen & Cohen, 1983): $R^2 = 0$ in the population relative to the influence of the linear combination of the control and predictor variables. The
general null hypothesis associated with the relative importance of each control or predictor variable assessed in analysis is (Cohen & Cohen, 1983): $\beta = 0$ in the population. The specific null hypotheses tested in this study are:

$H_0$: There is no difference in mean overall new teacher job satisfaction ratings associated with new teacher personal characteristics, cast as control variables in a multiple regression equation.

$H_0$: There is no difference in mean overall new teacher job satisfaction rating associated with general job facets, cast as predictor variables of interest.

$H_0$: There is no difference in mean overall new teacher job satisfaction rating associated with new teacher job-specific facets, cast as predictor variables of interest.

Definitions

The following definitions aid the reader in understanding terms and concepts related to this study.

1. Extrinsic rewards - Incentives provided to the employee by the organization or other people.
2. Facet job satisfaction - A positive emotional response to specific job components (e.g., work itself, work conditions, coworkers, supervisors).

3. General job satisfaction - An overall positive emotional response to the job. General job satisfaction may be a variable measured by a participant's response to a global scale or composite score derived from various facets.

4. Intrinsic rewards - Incentives provided to and derived from within the employee.

5. Job dissatisfaction - A negative emotional response to the job or job experiences.

6. Job satisfaction - "A pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 1300).

7. New teacher - a teacher with three years of classroom teaching experience or less

8. Overall job satisfaction - determined by the "sum of the evaluations of the discriminable elements of which the job is composed" (Locke, 1969, p. 330).

9. Psychological states - Hackman and Oldham (1975) identified the following three psychological
states that result in positive personal and work outcomes: experienced meaningfulness of the work, experienced responsibility for the outcomes of the work, and knowledge of the results of the work activities.

10. Work role inputs - elements that the worker brings to the job such as skills, time, effort, and training.

11. Work role outputs - elements that the worker receives from the job such as salary, fringe benefits, working conditions, status, working conditions, and intrinsic job satisfaction.

A review of job satisfaction literature that frames this study follows in Chapter II.
CHAPTER II
LITERATURE REVIEW

Edwin 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). It has connections to morale and job involvement. Job satisfaction should be of concern for two major reasons, it is a goal in and of itself, and because it contributes to other attitudes and outcomes (Locke, 1976). The literature reveals that job satisfaction relates to physical health and longevity, mental health, and worker actions (Locke, 1976). Knowledge of job satisfaction is useful for practitioners in various types of organizations. Perhaps the greatest concerns of organizations are worker actions such as absenteeism and turnover. Knowledge about factors that improve job satisfaction can serve employers striving to retain a qualified workforce. The study of job satisfaction is also important because it provides a valid basis for informing decisions regarding employee stress, employee productivity, and employee retention.
The purpose of this chapter is to review (a) private sector job satisfaction research, which includes turnover, job satisfaction in various demographic groups, and job satisfaction relationships and moderating variables and (b) education studies that examine teacher job satisfaction. The review also includes sections on job satisfaction instruments and research designs used in job satisfaction studies.

Job Satisfaction Studies in the Private Sector

Research on job satisfaction has its roots in various studies in the private sector. These include, but are not limited to research settings in retail, utility, and manufacturing with subjects who were managerial and non-managerial employees. This section includes studies that focus on job satisfaction and turnover, job satisfaction in various demographic groups, and the impact of moderating variables on job satisfaction.

Turnover

The studies reviewed in this section address the relationship between turnover and job satisfaction. The studies examine employee turnover reduction, conceptualization of turnover, and predictors of turnover. Organizations that are able to identify factors that affect turnover could make changes in the structures and policies
in an attempt to reduce it. The results of these studies partially laid the groundwork for the examination of certain variables in later studies.

Hulin (1968) conducted a quasi-experimental study to analyze changes that occurred after implementation of a turnover reduction program in a large Canadian manufacturing firm. The manufacturing firm implemented the program after experiencing a high turnover rate among its female clerical employees. The subjects of this study were the female clerical workers \(N = 298\) in the company. The researcher determined how many of the female workers quit as of April 1967. The Job Description Index (JDI) measured job satisfaction. The JDI is a cumulative-point adjective checklist type of scale.

The study findings indicated that there was an 18% decrease in turnover after implementation of the company's program. The results of t-tests showed an increase in satisfaction related to the five factors reflected on the JDI (pay, promotion, supervision, and co-workers). Hulin conducted a multiple regression to determine the predictive influence of the five factors (the independent variables) on turnover (the dependent variable). While a significant relationship existed between job satisfaction and turnover \(R = .45, p < .05\), there still existed a significant
amount of variance in satisfaction attributable to individual termination decisions ($R^2 = .12$).

Dreher and Dougherty (1980) conducted a correlation study to explore the potential for using objective estimates of employment opportunity for various occupational groups rather than relying solely on the employee estimations as predictors of turnover. They used Department of Labor estimates of employment opportunities along with job attitudes as independent variables to predict turnover, the dependent variable, in a longitudinal study. The researchers examined direct and moderating effects of competition for expected job openings.

Dreher and Dougherty used questionnaires in 1976 to collect the original attitudinal data. In 1978, they collected information regarding the withdrawal behavior of the group, the dependent variable. The study sample was drawn from the managerial, professional, and technical employees of a large national oil company and included a random selection of 44 employees who had voluntarily resigned and 44 continuing employees ($N = 88$). The researchers used the U.S. Department of Labor (1976) Occupational Outlook Handbook classification system to categorize the employees. The employees represented over 22 occupational groups. The researchers then evaluated each
occupational group in terms of its employment opportunity using the U.S. Department of Labor (1976) Occupational Outlook Quarterly. The degree of competition for the expected job openings, a predictor variable, characterized supply-demand relationships for each occupational group. Occupational Opportunity Adjectives yielded a competition index (1 = excellent opportunity, 5 = keen competition). Those jobs in which demand would exceed supply received a rating of excellent opportunity. Those jobs in which supply would exceed the demand received the rating of keen competition. Multiple opinion survey items measured the attitudinal variables and formed a composite index. Satisfaction with the work was among the attitudinal variables.

A regression analysis revealed that competition for an expected job opening could predict employee turnover. As competition for a job increased, there was a tendency for resignation rates to decrease. Dreher and Dougherty also found that competition produced a direct effect on turnover rates rather than an interaction effect with job attitudes. The results supported the use of objective estimates of employment opportunities as predictors of turnover.

Jackofsky and Peters (1983) argued for a different conceptualization of the turnover criterion. They suggested
that both intraorganizational and interorganizational mobility, as opposed to interorganizational mobility alone, more closely approximated an appropriate conceptualization of turnover. Jackofsky and Peters based their study on the hypothesis of March and Simon (1958) that a person's voluntary choice to leave an organization depends on their perception of both desirability of movement and the ease of movement. By defining turnover to include both intraorganizational and interorganizational movement, March and Simon's hypothesis reflects job turnover as opposed to organization turnover. Jackofsky and Peters tested the hypothesis by comparing job turnover and organization turnover conceptualizations.

The study participants were hourly, full-time workers (N = 265) in one of 12 department store chains in the same large urban area in the Southwest. Over a three-month period, Jackofsky met with the study participants to administer the research questionnaire. The Job Satisfaction Index (JSI; Brayfield & Rothe, 1951) and the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969) operationalized one of the independent variables, desirability of movement. The researchers used a composite score derived from three items to operationalize ease of movement, the other independent variable. They obtained
data regarding job turnover and organization turnover, the dependent variables, from personnel offices.

Jackofsky and Peters used moderated multiple regression to test for the hypothesized interaction effect of ease and desirability. Findings supported the conceptualization of turnover used in this study. Individuals with high expectations of finding alternatives had higher job satisfaction and were less likely to turnover. Individuals with low expectations of finding alternatives and high job satisfaction had increased likelihood of turning over. This explanation of the relationship between job satisfaction and ease and desirability was consistent with March and Simon's hypothesis.

Abraham (1999) investigated the impact of inequity in working conditions on job satisfaction and intention to turnover. She also tested the moderating effect of self-esteem in the inequity-turnover and inequity-satisfaction relationships. Behavioral plasticity theory formed the basis for examining the effect of self-esteem on inequity. Behavioral plasticity theory posits that individuals with low self-esteem are subject to stronger influence by external or social cues.
The participants in the study were employees \((N = 108)\) in the telecommunications, entertainment, food service, and clothing retail industries in the southeastern United States. Abraham distributed questionnaires and collected data at single sittings for the entire sample. The dependent variables were job satisfaction and intention to turnover. Hackman and Oldham's (1975) Job Satisfaction Scale measured job satisfaction through five items with a 7-point scale \((\text{coefficient } \alpha = .87)\). Three items with a 7-point subscale from the Michigan Organizational Assessment Questionnaire (Cammann, Fichman, Jenkins, & Kelsh, 1979) measured intention to turnover. The independent variables, derived from an adaptation of the Pay Comparison Scale (Scholl et al., 1987), were job inequity, company inequity, occupational inequity, educational inequity, age inequity, system inequity, and self-inequity. Self-esteem was the moderator variable in the moderated hierarchical regression analysis. Abraham used Quinn and Shepard's (1974) Self-Perceptions at Work Scale to operationalize self-esteem. The researcher controlled for age, gender, organizational level, and tenure.

The results of a multiple regression revealed that system- and age-inequity were significant predictors of job satisfaction. The full model explained 43% of the variance
in job satisfaction. Company-inequity was the sole predictor of intention to turnover. The full model explained 10% of the variance in intention to turnover. Self-esteem moderated the relationship between inequity and job satisfaction and inequity and intention to turnover.

The most significant findings discovered by the turnover studies include the effectiveness of implementing an employee turnover reduction program that addresses pay, promotion, supervision, and co-workers decreases turnover. The findings also provide predictors for turnover. These studies provided a conceptualization of turnover as a person's decision to leave a job regardless of whether he or she is going to another job in the same organization or a job outside of the organization. These findings highlight the importance of job satisfaction in turnover decisions.

**Job Satisfaction in Various Demographic Groups**

The studies in this section addressed job satisfaction in various demographic groups. The articles addressed differences in job satisfaction among genders, races, industries, and management levels. An examination of job satisfaction in various groups provides organizations with valuable information about the facets of the work environment that might affect job satisfaction of its workers (Locke, 1976). If an organization finds differences
in job satisfaction by gender, for example, it might discover that men and women in the same job experience different interactions with their work environment that are the result of structures put in place by the organization. Findings in these studies inform policy decisions at the organizational level.

Porter (1961) conducted a study to expand on motivation research by focusing on different levels of management. He investigated perceived satisfaction or dissatisfaction of psychological needs fulfillment in the workplace and the importance attached to the types of psychological needs. Porter sought to determine if there were differences in needs among bottom and middle level managers \((N = 139)\) from three companies. This study analyzed data from 15 questionnaire items dealing with needs satisfaction. The respondents rated characteristics or qualities associated with managerial positions, the dependent variable, on a scale from 1 \((\text{minimum})\) to 7 \((\text{maximum})\) according to how much existed, how much should exist, and how important it was. Porter categorized items consistent with Maslow's (1954) theory of hierarchical needs. The respondents received questionnaires from their company or through the mail.
The researcher analyzed the mean differences and differences in rank order between the bottom- and middle-level managers (the independent variable with two levels). Results indicated that the bottom-level managers were significantly more deficient in the areas of security, esteem, and autonomy categories. He also found that the bottom-level manager to be more deficient in the areas of social and self-actualization, yet the difference was not statistically significant. Porter further found deficiencies in the higher-order needs for both groups. In determining the importance attached to the types of needs, he found self-actualization and security ranked highest.

The study findings indicated that those in bottom-level management had the least satisfaction of their needs. Both levels of management experienced deficiencies in the areas of esteem and self-actualization. This indicates that higher-order needs were more often unmet than the lower-order needs.

Edel (1966) assessed aspects of the job perceived as satisfying or dissatisfying to first-line supervisors and middle managers. He also compared the degree of satisfaction, the dependent variable, between the levels of management and differences in importance of need satisfaction as perceived by the two levels of management,
the independent variable. The sample consisted of first-line supervisors (48%) and middle management (52%) employees of a large federal agency (N = 121). The subjects completed Part I of the Management Position Questionnaire (Porter, 1961). The questionnaire contained characteristics of management classified according to Maslow’s (1954) hierarchy of needs. The participants rated 16 management characteristics according to how much existed, how much should exist, and how important it was.

Findings indicated that both levels of management showed a deficiency in need fulfillment for higher order needs more than lower-order needs. The greatest difference between the two management levels was in the area of esteem and autonomy. Middle managers indicated a higher degree of satisfaction than did first-line supervisors. These findings were consistent with those of Porter (1961).

Ivancevich and Baker (1970) expanded previous research involving perceived job satisfaction of managerial personnel and provided insight into the differing philosophies of management principles. They compared the perceived needs satisfaction of American managers representing large U.S. companies in Europe and American managers working in the continental United States.
The researchers sampled top-level and middle-level randomly selected executives in Europe and 10% of three separate listings of executives in the United States. The random sample consisted of middle-level and top-level managers in U.S. companies in Europe and the United States ($N = 489$). Top-level managers in Europe ($n = 37$) and top-level managers in the United States ($n = 203$) responded to the questionnaire. Middle-level managers in Europe ($n = 48$) and middle-level managers in the United States ($n = 210$) responded to the questionnaire.

The researchers gathered data from the Porter Need Satisfaction Questionnaire (Porter, 1961). The questionnaire, based on the Maslow theory of motivation, measured 12 need items, the dependent variables. For each need item, the respondent rated how much the characteristic currently existed and how much the characteristic should exist. The researchers obtained a deficiency/satisfaction score for each item by calculating the difference in the rating of the first and second part of each item. They categorized the 12 items into five areas (security, social, esteem, autonomy, self-actualization).

The researchers compared the mean needs scores in each group of managers (U.S. and Europe), the independent variable. They additionally rank ordered the scores to
determine the level of satisfaction with each category. Two-tailed t-tests revealed significant differences in mean scores for six of the 12 items. Top-level managers in Europe indicated significantly less satisfaction on all six items. Results of the rank ordered data revealed that the top-level managers in Europe ranked needs inconsistent with Porter's hypothesis. Top-level managers in Europe gave higher rankings in the area of self-esteem. When comparing middle-level managers, the researchers found that managers in Europe were more satisfied with self-actualization and less satisfied with social needs. The rank-ordered data for middle-level managers revealed the most significant difference in security needs. Middle-level managers in Europe reported the least need for security and middle-level managers in the United States reported the greatest need for security.

These research findings were unexpected, but may have related to the anti-American sentiments of some European countries at the time of the study. The researchers recommended that executives develop motivation programs to address the need deficiencies of its managers.

Smith, Smith, and Rollo (1974) extended the validity of the Job Descriptive Index (JDI; Smith Kendall, & Hulin, 1969). More specifically, they sought to determine whether
the convergent and discriminant validity previously reported for industrial workers held for civil service workers. They compared the factor structure for Blacks and Whites. They also tested for a general factor as predicted by previous research and determined item discriminability of the five scales for three different white-collar samples of workers. The participants were White and Black employees of a civil service accounting division and nearly all White, randomly selected bank employees (N = 429).

The independent variable was group status with two levels. The dependent variable was job satisfaction as measured by participant rating on the Job Descriptive Index. The quantitative research design used analysis of variance to achieve the purpose of the study. Research findings indicated bank employees were more satisfied than were civil service employees and White civil service employees were more satisfied than were Black civil service employees.

Golembiewski and Yeager (1978) sought to determine the applicability of the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969) across a broad range of jobs and employees with differing demographic characteristics. They expanded on existing research by broadening the scope of applicability of the JDI. The sample included a large set
of workers in American sites \((N = 2,671)\). Jobs ranged from chief executives to porters. The researchers analyzed the applicability of the JDI for five specific demographic groups: self-identified members of management versus non-members of management, hourly workers versus salaried employees, White versus Black, female versus male, and White female versus White male.

Golembiewski and Yeager used the participant responses to the JDI in a factor analysis and used Ahmavaara’s (1954) technique to determine the congruence of the resulting factorial structures. Findings indicated high congruence between all five pairs of structures. The researchers concluded that the JDI was substantially applicable to different demographic groups.

Martinson and Wilkening (1984) assessed the impact of job level on job satisfaction in conjunction with residence measures (urban or rural) to determine whether job level differences overshadowed worker background differences or combined with occupation to affect job satisfaction. The researchers used an area probability sample of the state of Wisconsin to address the issue of external validity and to increase the generalizability of the findings. The sample consisted of adults drawn from a 1974 statewide survey of Wisconsinites conducted by the Wisconsin Survey Research
Laboratory. A sub-sample of those who reported that they were currently working became the respondents for the study (N = 323).

The researchers used an appropriately worded question to measure one of the independent variables, size of place of origin. The five possible responses ranged from open country to over 50,000 persons. Martinson and Wilkening collapsed U.S. Census occupation categories to operationalize the other independent variable, job level. The resulting categories ranged from high (white collar) to low (blue collar). The dependent variable of the study was participant rating of job satisfaction on various aspects of his or her work. Responses ranged from 7 (completely satisfied) to 1 (completely dissatisfied).

Factor analysis revealed two dimensions of job satisfaction. The intrinsic dimension dealt with feelings of accomplishment, ability to make decisions on the job, relationship with others on the job, and the opportunity to do the things the respondent does best. The extrinsic dimension dealt with income and the opportunity to earn more money without changing employers. The researches tested their hypotheses using analysis of variance (ANOVA).

Place of origin produced significant differences in levels of intrinsic job satisfaction. Respondents who had
grown up in places of 2,500 to 10,000 persons were more satisfied with the intrinsic aspects of their work than those who grew up in other settings. Job levels produced statistically significant differences in intrinsic and extrinsic dimensions of job satisfaction. Lower level blue-collar and lower level white-collar workers were less satisfied than were their counterparts. The researchers surmised that those with less specialized work tended to be less satisfied.

In testing their third hypothesis, the researchers found that the effects of place of origin in intrinsic job satisfaction remained, but the effects of level of occupation remained for intrinsic only. They conclude that the place of origin moderates the effect of job level, but only for extrinsic job satisfaction. The researchers suggested that specificity of the residential setting is necessary to observe the effects of the place of origin variables.

Mason (1995) tested the socialization and structural perspectives of job satisfaction against each other. She addressed gaps in previous research by utilizing a theoretical framework to inform the investigation and by comparing managerial and clerical employees. Mason tested the hypotheses held by each theory: (a) socialization
theory predicts gender differences in both impoverished and enriched opportunity structures, (b) structural theory predicts no gender differences in either impoverished or enriched group comparisons, and (c) social role theory predicts gender differences analogous to those of socialization theory in impoverished structures and no gender differences in enriched structures.

Mason obtained participant data from the client database of a large North-American management consulting company (N = 13,574). The clerical structure of the sample operationalized an impoverished opportunity structure. The managerial structure operationalized the enriched opportunity structure. Questionnaire items measured the dependent variables: job content, facets of job satisfaction, job interest, feedback from agents, comparable work and pay, co-workers, external equity and pay, supervision, performance evaluation, fair treatment, and overall job and company satisfaction. Participants had previously responded to the items using a 5-point scale ranging from 1 (strongly agree or excellent) to 5 (strongly disagree or poor).

Mason calculated t-tests and effect sizes to test for the possible differences between groups. She analyzed mean differences of job content, related factors, and job
satisfaction facets. She also considered variables in terms of whether they were agentic or communal. The $t$-tests revealed patterns of mean differences. She compared those patterns with the patterns predicted by the theories tested.

The study findings indicated support for the structural theory in eight of the factors examined. Here were no significant differences between men and women on the variables that represent structural theory. Six of the factors supported social role theory. Significant differences existed at the clerical level, but not at the managerial level. The results did not support the socialization theory.

Robie, Ryan, Schmieder, Parra, and Smith (1998) conducted two studies in an attempt to address previous inconsistent findings in the research on the relationship between job level and job satisfaction. The purpose of the first study was to arrive at an estimate of the relationship between job level and job satisfaction and to investigate whether errors in sampling or measurement account for the conflicting findings found in the literature.

The researchers examined 37 studies on job level-job satisfaction relationships using meta-analytic procedures.
Findings indicated a moderate relationship between job level and job satisfaction and that operationalization of job level and the power of distance of the culture may moderate the relationship. These findings suggested that job level would have a larger effect on job satisfaction in cultures where large inequities exist between individuals within the organization. The first study was limited in that the researchers were not able to investigate the moderating effect of using different operationalizations of job level standardized across organizations to predict different facets of job satisfaction.

Robie et al. (1998) conducted the second study to examine the convergence of various measures of job level that were not organization-dependent, and the relationship between job level and job satisfaction facets. The participants in the second study were hospital employees (N = 530) in the southeastern United States. The researchers used a correlation design to examine the job level and job satisfaction relationship. Four measures operationalized job level (job complexity, prestige, Dictionary of Occupational Titles [DOT; U. S. Department of Labor, 1991] data and things classifications, and specific vocational preparation [SVP]). Doctoral psychology students rated the complexity of each job. Treiman’s Standard International
Occupational Prestige Scale (1977) assessed the prestige associated with each job. The researchers used Hunter, Schmidt, and Judiesch's (1990) method of rating job complexity from DOT information. They additionally used the DOT ratings of SVP to operationalized job complexity. The Job Descriptive Index measured job satisfaction because it addresses five factorially derived facets of job satisfaction (work, pay, promotion, supervision, and coworkers). Findings of the second study indicated a consistently significant positive relationship between the measures of job level and job satisfaction ($p < .05$). Additionally, the researchers found a high degree of convergence among the measures of job level.

Smith, Smits, and Hoy (1998) conducted a cross-section study to determine whether female and male employees would have different work attitudes due to the contextual differences in small businesses owned and managed by men and women. They extended previous research by examining the influence of gender through the structuralist, socialization, and ethnomethodologist perspectives. The structuralist perspective contends that differences in work attitudes relate to characteristics of the work itself rather than gender. The socialization perspective suggests that differences in work attitudes derive from differences
in the socialization of men and women. The ethnomethodologist perspective views differences between the genders in the work place as a result of multiple causes and the natural differences in society.

The sample consisted of employees of female- and male-owned small businesses (N = 702). The researchers began the sampling process by collecting data from a database provided by the U.S. Small Business Administration. The database provided a number of small businesses in three industries (construction, manufacturing, and wholesale distribution). The researchers then chose companies based on male and female ownership. The final sample consisted of 56 businesses (27 female-owned and 29 male-owned). Employees of the sample organizations completed questionnaires that provided information about age, gender, children, education, tenure, type of work, management status, and job satisfaction.

The Job Perception Scale (JPS: Hatfield, Robinson, & Huseman, 1985) measured job satisfaction, the dependent variable. The researchers conducted a t-test with gender as the independent variable to determine if job satisfaction differed between female and male employees or between all workers employed by females or males. Results indicated no significant differences in job satisfaction due to gender
of the employee or gender of the employer. Next, the
researchers conducted an analysis of variance (ANOVA) to
detect gender related differences in employee job
satisfaction. Job satisfaction was the dependent variable
and gender of the employee was the independent variable.
The results indicated no significant differences in job
satisfaction of female and male employees. The researchers
examined how job satisfaction differed for female and male
employees depending on the gender of the owner. Results
indicated that satisfaction was higher for employees who
worked for owners of the same gender.

Finally, the researchers used a regression analysis to
assess the relationship between job satisfaction and
organizational characteristics, employee demographics, and
job-related characteristics. The regression analysis
revealed that the amount of variance in job satisfaction
attributable to the independent variables was significantly
different for female employees in female-owned firms than
for females in male-owned firms. They concluded that the
structuralist and the socialization perspectives received
support from the findings of the study.

Faubion, Palmer, and Andrew (2001) sought to identify
the extrinsic job factors that rehabilitation counselors
perceived as contributing to job satisfaction. They
conducted the study in hopes to assist administrators with retaining counselors. The researchers drew the sample of counselors from 16 randomly selected rehabilitation agencies in 16 states. Counselors identified the type of caseload as rural, urban, and mixed. Those who identified a mixed caseload were dropped from the study resulting in a final sample ($N = 242$).

The researchers developed the Environment of Job Satisfaction Survey for the study. The survey, partly adapted from existing surveys, contained 50 items. Fifteen items gathered demographic data. Twenty items asked for information regarding satisfaction with and the importance of extrinsic factors on-the-job. Fifteen additional items focused specifically on job satisfaction and importance. Satisfaction and importance items contained two Likert-type scales. Respondents rated agreement with an item on a 5-point scale from 0 (definitely disagree) to 4 (definitely agree). Respondents rated importance of an item on a 3-point scale from 0 (not important) to 2 (very important). The researchers addressed validity of the instrument by having a panel of experts to review the survey items. They also tested the internal consistency and found high reliability of the survey (coefficient $\alpha = 0.88$).
Faubion, Palmer, and Andrew analyzed the survey results for differences between the urban and rural and small and large groups using multivariate analysis of variance (MANOVA) and t-tests. Satisfaction was the dependent variable, and group was the independent variable. Findings indicate that counselors with rural caseloads reported greater satisfaction with extrinsic job factors and greater satisfaction with safety. There were no significant differences between the groups for importance of extrinsic factors, or overall satisfaction. Additional findings revealed that counselors in small offices reported greater satisfaction with location, safety, healthy environment, and comfort than did counselors in large offices. Counselors in small offices rated safety higher in importance. There were no significant demographic differences between either of the groups.

The researchers also conducted a stepwise multiple regression to explore the relationship between counselor satisfaction and the number of counselors in the office, agency building co-habitants, distance from supervisor, hours per week spent traveling, and miles traveled per week. Findings indicated that none of the variables contributed significantly to the regression equation. The researchers concluded that the findings could help
administrators address safety in an effort to retain highly qualified rehabilitation counselors.

There were numerous significant findings in the studies of job satisfaction in various demographic groups. The studies identified differences in satisfaction for different levels of management, different races, different industries, and businesses that differ in size and ownership. They also identified varying levels of deficiencies in higher-order needs for management level employees. These studies also demonstrated the applicability of the Job Descriptive Index with different demographic groups. These findings support the need for organizations to attend to reasons for differences in job satisfaction of its workers (Ivancevich & Baker, 1970). The literature suggests that organizations could address the needs of the workers and adjust the structure of the organization and or work environment to potentially increase job satisfaction.

Some of the aforementioned studies examined variables that moderated the relationship between job satisfaction and other variable under examination. The studies in the next section demonstrate extensive examination of moderating variables with job satisfaction. These studies have their roots in the previously mentioned research.
Job Satisfaction Relationships and Moderating Variables

The studies in this section explored the role of job satisfaction relationships in various settings and its relationship with job performance. Many of these studies also addressed moderator variables in job satisfaction relationships. The first six studies focus on job satisfaction relationships with facets related to the work. These facets included work meaning, job scope, task attributes, job involvement, job congruence, and performance appraisal satisfaction. The remaining studies focus on job satisfaction relationships with facets related to the worker. These facets included worker ability, self-esteem, locus of control, psychological factors, and overqualification.

Brown, Kitchell, O’Neil, Lockliear, Vosler, Kubek, and Dale (2001) conducted a qualitative study to identify the types of meaning individuals derive from work and compare the sources of meaning between individuals with high and low work satisfaction levels. Brown et al. identified meaning as “the importance or significance an individual identifies with an occupation” (p. 220). They also contend that the meaning an individual attaches to work can influence the level of satisfaction they experience. After conducting a pilot study to develop the interview format
and coding techniques, the researchers advertised for study volunteers. The advertisements were in the form of emails and posters placed at local businesses and grocery stores. The researchers then reviewed the list of volunteers who had responded to the advertisements to determine eligibility. All eligible volunteers completed the Index of Organizational Reactions (IOR; Smith, 1976), which measured an individual's level of satisfaction of work within an organization.

Due to limited time and resources, the research team only selected four participants \((N = 4)\) based in diversity of work setting and equal representation of the categories of high satisfaction and low satisfaction. One interviewer conducted multiple interviews with the participants. The interviewer audiotaped, transcribed, and reviewed with each participant as a means of member checking. An expert panel audited the data received from participants.

The researchers used principles of phenomenology and micro-coding for analysis. After coding, they clustered the data into categories reflecting concepts of meaning, satisfaction, and motivation in work experience. In the second stage of analysis, the research team and an expert panel conducted a comparative analysis to observe the
various ways the participants experienced work and the meaning of work.

Findings indicated that the participants’ experiences supported the existing literature on satisfaction of work and finding meaning in work. The participants’ various levels of satisfaction and meaning of work were within the context of social supports, work supports, leadership style, and intrinsic motivation. The researchers acknowledged that the small sample limited the generalizability of the findings. They concluded that meaningful work might lead to increased job satisfaction, which may result in greater motivation to work, increased productivity, and decreased turnover.

Stone (1976), through exploration of numerous previous studies on the relationship between job scope (JS) and job satisfaction, conducted a correlation study to determine the relationship between job scope and job satisfaction of the work itself (SWI) of workers with varying degrees of Protestant ethic (PE), a classification corresponding to Hulin and Blood’s (1968) middle class work norms.

The sample consisted of subjects working in a variety of jobs and organizations in the southern California area (N = 594). Stone used two instruments to gather data. Incumbents in the various jobs completed a 13-page
questionnaire. Independent raters completed a two-page questionnaire to obtain independent ratings of the job characteristics. Stone converted job scope means of the incumbent and independent raters to ranks and conducted a correlation. This analysis revealed that the incumbents' affective reactions to their jobs ratings did not greatly differ from the independent ratings.

A modified Job Satisfaction Index (JSI; Brayfield-Rothe, 1951) measured job satisfaction. Participants responded to the items by thinking only about the work they do rather than about other job-related factors. Stone used this modified version to assess satisfaction with the work itself rather than overall job satisfaction. He also added five one-item measures to assess other facets of job satisfaction separately. He intended to show that the JS-SWI relationship held up even after the other factors were partialed from it. The Survey of Work Values (Wollack, Goodale, Wijting, & Smith, 1971) measured six components of Protestant ethic (PE). An unweighted linear combination of the subscale scores formed the PE index. Stone collected demographic data in the questionnaires.

The researcher used zero-order correlations, partial correlations, and moderated regression analyses to test his hypotheses. Study findings supported all but one of Stone's
hypotheses. He found that neither PE nor any of its components moderated the JS-JWI relationship. He concluded that Protestant ethic not be considered as an important individual difference variable when determining the influence of changes in job scope on satisfaction with the work itself.

Orpen (1984) conducted a longitudinal study to examine the relationship between task attributes and job satisfaction at different career stages. He examined hypotheses held by Hackman and Oldham, the creators of the Job Diagnostic Inventory, that task attributes significantly relate to job satisfaction only after the initial stage on the job. They contended that new comers are most concerned with establishing identity and that those on the job long enough to establish routines tend to be non-responsive to the task attributes and therefore do not significantly relate to job satisfaction.

The participants were White employees of five different South African industrial companies whom held the same middle manager position for the duration of the study (N = 25). Orpen measured the task attribute perceptions and the overall job satisfaction of each participant three times: after six months' tenure in the position, at approximately two years tenure, and after six years'
tenure. The Job Diagnostic Inventory (Hackman & Oldham, 1975) measured task attribute perceptions. The Job Satisfaction Index (Brayfield-Rothe, 1951) measured overall job satisfaction.

Person correlations between task attribute and satisfaction revealed only two significant correlations after six months and one after six years. All of the correlations were significant after two years. These findings supported Hackman and Oldham’s hypothesis.

Orpen (1997) examined the interaction between job involvement and communication. Previous research supposed that the quality of communication affects employees deeply involved in their jobs more than those who are not deeply involved. Employees responded positively to good communication and negatively to poor communication, therefore making performance difficult. Orpen expanded on previous research by collecting data from a variety of work organizations.

The subjects were managers (N = 135) employed by 21 different firms in a variety of industries in the United Kingdom. They were first-level supervisors who were responsible for workers and who reported to a senior manager. Each manager completed a version of the Frone and Major’s (1988) measure of Organizational communication.
Effectiveness that assessed the extent to which communications within the firm were judged to be timely accurate, and complete (coefficient $\alpha = .73$). Orpen summed responses to yield a single score of perceived communication quality for each participant. Lodahl and Kejner's (1965) scale assessed job involvement (coefficient $\alpha = .79$). A 10-item version of the Action Tendency Scale (Hartman, Grigsby, Crino, & Chhokar, 1989) measured job satisfaction (coefficient $\alpha = .83$). Six items from the Job Diagnostic Survey (Hackman & Oldham, 1975) measured work motivation (coefficient $\alpha = .79$).

In his analysis, Orpen compared the average communication quality scores for managers from the same firm (rather than the manager's own score) with each manager's score for performance and satisfaction to calculate the relationship between communication quality and the employee responses. Orpen used hierarchical multiple regression to examine whether the independent variables, job involvement and communication quality, interacted to determine variations in employee satisfaction and work motivation (the dependent variables). He entered the interaction term after calculating the separate main effects for both equations.
The main effects of communication quality on job satisfaction and work motivation were both significant. Main effects of job involvement were also significant for job satisfaction and work motivation. Inclusion of the interaction term in the equation added significantly to the explained variance for job satisfaction. The increase in work motivation variance was also significant when Orpen added the communication quality-job involvement term to the equation. Study findings indicate that the quality of communication positively affected job satisfaction and work motivation. Orpen also found that job involvement moderated the effects of communication quality on job satisfaction and work motivation.

Jagger and Neukrug (1992) examined the relationship between congruence and job satisfaction. Their study, based on Holland's (1985) personality theory, assessed the relationship between congruence and job satisfaction of former vocational rehabilitation clients. They expanded on existing research by focusing on individuals with disabilities. A preliminary mailing of 173 potential participants resulted in the sample of former clients who were eligible for the study (N = 97). The participants received an explanatory cover letter, the Minnesota Satisfaction Questionnaire-Short Form (MSQ; Weiss, Dawis,
England, & Lofquist, 1967), and a self-addressed stamped envelope.

The MSQ measure of the job satisfaction yielded an interval score of job satisfaction. Three instruments determined the Holland Occupational Codes. The researchers used Career Assessment Inventory (CAI; Johansson, 1986), the Self-Directed Search (SDS, Holland, 1985), and the Strong Interest Inventory (SCII; Strong, Hansen & Campbell, 1985) in the most appropriate cases to determine the Holland code. The researchers used the Compatibility Index (CI; Moody, 1983) to assess the congruence between the participant's Holland code and his or her work environment code. This index supplied an interval variable for comparison with job satisfaction in a Pearson correlation. All instruments used in data collection had documentation supporting their reliability and validity.

Jagger and Neukrug found a statistically significant correlation between job satisfaction and congruence ($r = .26, p < .05$). They concluded that vocational rehabilitation counselors would best serve their clients by using assessments based on Holland's theory.

Blau (1999) conducted a longitudinal study to broaden the causal base for job satisfaction by considering performance appraisal satisfaction and utilizing
organizational-level variables related to job satisfaction. His two hypotheses were that (a) work variables would significantly impact subsequent measures of overall job satisfaction beyond controlled for prior job satisfaction, individual difference, and organization-level variables and (b) performance appraisal satisfaction would significantly impact subsequent overall job satisfaction beyond prior job satisfaction, individual differences, organizational level, and work variables.

The researcher collected data from the Board of Registry of the American Society for clinical Pathologists longitudinal study that began in 1993. Study participants were medical technologists (MTs). A stratified random sample of recently graduated MTs received surveys in 1993, 1994, 1995, and 1996. Due to the design, the study experienced a loss of participants over time.

Blau used hierarchical regression to test the two hypotheses. He regressed 1993 through 1995 prior overall job satisfaction, individual difference, organizational-level, work variables, and performance appraisal satisfaction (Dobbins, Cardy, & Platz-Vieno, 1990), the independent variables, on 1996 subsequent overall job satisfaction (Hackman & Oldham, 1975), the dependent variable.
Findings showed a significant amount of explained variance in subsequent overall job satisfaction for each variable block \((\text{Adj. } R^2 = .26, p < .05)\). The results supported both hypotheses. The author concluded that performance appraisal satisfaction was an important "process" satisfaction facet affecting "outcome" satisfaction facets and deserved consideration in future research.

The remaining studies in this section continue an examination of job satisfaction relationships with factors related to the worker. These factors include worker ability, self-esteem, locus of control, psychological factors, performance, and perceptions (overqualification and organizational politics). These studies go beyond the work itself to include an exploration of worker capacity, attitudes, and perceptions.

Barrett, Forbes, O’Connor, and Alexander (1980) investigated the relationship between ability and job satisfaction. They extended previous laboratory research on the nature of the relationship as a function of the task. The researchers compared the relationships in laboratory and field setting. They proposed that as job characteristics and ability requirements increase, the nature of the relationship between ability and satisfaction
changes. They hypothesized that the less demanding tasks would challenge only those with little ability resulting in negative relationships between ability and satisfaction; and the more demanding task would be of appropriate difficulty only for the more able subjects resulting in positive ability-satisfaction relationships. The study participants (N = 58) were naval sonar and radar operators (n = 29) and undergraduate students (n = 29) from the University of Akron.

In the laboratory setting, the undergraduate students participated in three one-hour sessions during which they engaged in the tasks and completed task related responses. The researchers used three measures of ability: (a) Wesman personnel classification test (Wesman, 1965), (b) the group embedded figures test (Witkin, Oltman, Raskin, & Karp, 1971), and (c) the rod-and-frame test (Witkin, Lewis, Hertzman, Machover, Meissner, & Wapner, 1954). In the field setting, the naval personnel responded to scales that measured satisfaction and intent to remain in the Navy. The researchers obtained naval test battery ability scores from each participant's personnel file. The work itself scale of the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969) measured job satisfaction.
The researchers used the Pearson-r to determine the correlations between ability and satisfaction, ability and intent to remain in the Navy, and ability and task performance. The study findings indicate consistent significant relationships between high ability and high performance in the laboratory setting. Negative relationships between abilities and satisfaction existed in both field and laboratory settings, yet not consistently. The findings show that the most dissatisfied participants had the greatest ability. The researchers cautioned administrators who attempt to enrich jobs stating that this might result in raising the ability requirements too high.

Mossholder, Bedeian, and Armenakis (1981) examined the joint moderating influence of ability and organizational level using a less situationally specific operationalization of employee ability. They hypothesized that, given the combined effect of organizational level and self-esteem on role ambiguity and conflict, self-esteem would diminish the negative effects of role perceptions at lower organizational levels.

The sample for the study consisted of nursing employees at a 1,100-bed hospital located in the southeast (N = 161). The sample consisted of administrators (n = 64) and lower level staff (n = 97). Employee performance and
satisfaction were the dependent variables. Role ambiguity and role conflict were the independent variables. Self-esteem and organization level were moderator variables. The researchers gathered data on all measures except performance by using a survey questionnaire administered during work hours. Scales developed by Rizzo, House, and Litzman (1970) measured role ambiguity and role conflict. Separate items measured role ambiguity and role conflict. Five items taken from the Survey of Organizations Questionnaire measured satisfaction. The self-confidence scale of the Gough and Heilbrun's Adjective Check List (1965) measured self-esteem. Approximately two months after the survey questionnaire, nursing supervisors evaluated their immediate staff members to evaluate employee performance across five performance dimensions: (a) quantity of work, (b) quality of work, (c) knowledge of work, (d) dependability, and (e) overall performance. Supervisors compared each employee's performance to his or her co-workers' performance. Performance scores created a global performance criterion. The researchers reported acceptable reliability coefficients for all scales used in the study ($\alpha < .70$).
Mossholder, Bedeian, and Armenakis used moderated multiple regression analysis to test for the hypothesized interaction effects. The researchers accounted for organizational level by splitting the sample into high and low levels and running three variable (role ambiguity, role conflict, and self-esteem) regression models. The researchers determined the combined interaction effects of organization level and self-esteem by running full and restricted regression models for each sub group. Subgroup correlation analysis determined the directionality of detected interaction effects. Median splits identified any significant interactions within an organizational level. The researchers determined correlations between role perception variables and outcome variables and tested them for equality using Fisher's z-test of differences.

The findings confirmed the researchers' hypothesis that self-esteem weakened the negative influence of role ambiguity and conflict on performance and satisfaction. The results were significant, yet they accounted for small amounts of variance in satisfaction and performance. Results for performance show significance only for an equation that included role conflict x self-esteem interaction ($R^2 = .10$). The results for satisfaction were significant for all equations, which accounted from 21% to
25% of the variance. While these are significant, there remains a large proportion of unexplained variance.

Lopez (1982) conducted a correlation study to explore the differential impact of self-esteem on the relationships between various job satisfaction scores and job performance. She sought to test the moderating effects of chronic, task-specific, and social self-esteem on the job performance-satisfaction relationship. The sample consisted of Masters in Business Administration students at six eastern metropolitan universities who were employed full time at a variety of organizations and volunteered to participate in the study (N = 1,487). The Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969) and the short form of the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967) measured job satisfaction.

Lopez developed an instrument to measure job performance for the study. The instrument contained 52 behaviorally based appraisal questions. Question ratings were in accordance with Koontz’s (1971) rating scale for his Appraisal of Performance as a Manager from 5 (superior) to 0 (inadequate). Lopez used this instrument to collect data from the supervisors of the participants. The self-assurance scale of the Self Descriptive Inventory
(Ghiselli, 1971) measured chronic self-esteem. Lopez developed a task-specific self-esteem (TSSE) instrument for the study. The instrument required the subjects to indicate the percentage of time a particular behavior applied to them. The researcher measured social self-esteem by asking subjects to report their most accurate estimate of themselves, as they believed other people who knew their job performance saw them. Lopez used the Need for Approval Scale (Crowne & Marlowe, 1964) to determine if any of the results of the study were a function of need for approval rather than self-esteem. The three measures of self-esteem and the need for approval did not relate for any of the subgroups.

The major research findings provided support for the hypothesis that self-esteem moderates the job performance-job satisfaction relationship. More specifically, the moderation depended on whether one was considering chronic, task-specific, or social aspects of self-esteem; the subjects' sex; and the type of job satisfaction measured.

Norris and Niebuhr (1984) examined the moderating influences of locus of control on the performance-satisfaction relationships. They hypothesized that the relationship between performance and satisfaction would be
stronger for those persons who tend to attribute cause or
to internal factors as opposed to external factors.

The sample included the technical employees \( (N = 116) \) in the engineering department of a medium sized industrial company employing almost 1,300 workers. The dependent variable for the study was the sum of scores on five sub-scales of the Job Descriptive Index (Smith et al., 1969). The independent variables were job performance and locus of control. Fifty-two supervisors ranked the workers based on overall performance and operationalized job performance. Participant score on Rotter's (1966) locus of control instrument operationalized locus of control.

Pearson product-moment correlations between the variables ruled out problems with multicollinearity and justified the subsequent moderated multiple regression. The hierarchical inclusion method of moderated multiple regression revealed that the interaction of job performance and locus of control added significantly to the explained variances in overall satisfaction, satisfaction with pay, and satisfaction with promotion apart from the variance explained by performance and locus of control. The results indicated that locus of control acted as a significant moderator of the performance-satisfaction relationship. Further analysis using Cochran's C-statistic indicated that
a significantly stronger relationship occurred between performance and satisfaction for individuals with internal orientations of locus of control.

Georgopoulos, Mahoney, and Jones (1957) examined the effects of certain psychological factors on individual productivity in organizations. The researchers used a path-goal model to explain that an individual's productivity as a function of one's motivation to produce at a given level; in turn, one's motivation depends upon an individual's needs related to a goal and his perception regarding the relative usefulness of productivity in attaining their goal. The participants were incentive workers ($N = 621$) in a medium-sized, un-unionized household appliance company. Workers received a reward based upon a measure of their effort during a particular period.

Georgopoulos, Mahoney, and Jones (1957) hypothesized the following: (a) with respect to a given goal, the percentage of high producers will be greater among workers with positive path-goal perceptions, (b) the percentage difference of high producers between those having a positive and those having a negative path-goal perception will be greater among workers who have a high than among those who have a low need for the same goal, (c) the percentage difference of high producers between those
having a positive and those having a negative path-goal perception will be greater among workers who are free from constraining forces, and (d) the percentage difference of high producers between those having a positive and those having a negative path-goal perception will be greater among workers who have a high need and are free than among workers characterized by any other combination of need and freedom.

The researchers used two groups of questionnaire items to operationalize path-goal perception. One group ascertained how instrumental high productivity was for attaining certain job-related goals. The second group ascertained how instrumental low productivity was for attaining certain job-related goals. If a participant responded that high productivity helped goal attainment, the path-goal perception was positive. If a participant responded that high productivity hurt goal attainment, the path-goal perception was negative. If neither was the case, the path-goal perception was neutral. The researchers eliminated neutral perceptions when possible or combined them with the negative responders.

A ranking of each goal determined the level of need. Those goals with a rank of 1, 2, or 3 formed the high need group. Those with any other ranking formed the low need
group. Those in the free group were participants who stated that they were free to set their work pace, had a minimum of six months experience on the job, and were between the ages of 20 and 59. The researchers considered all others as the not-free group.

The researchers used a chi-square analysis to determine significant differences between the groups' reported percentages of productivity. The findings supported all four hypotheses. The researchers concluded that if a worker saw high productivity as a path to the attainment of his personal goals, he tended to be a high (or low) producer. They also found a more pronounced relationship among workers who had a high need with respect to a given goal and who were free from constraining forces.

Lawler and Porter (1967) conducted a correlation study to test a theoretical model connecting job performance and job satisfaction. In their model, job performance lead to intrinsic and extrinsic rewards, which lead to the perception of the equity of the rewards, which lead to satisfaction. They predicted that and individual's degree of dissatisfaction was related to his job performance more than his effort and the relationships would be stronger for managers than for non-managers. The researchers collected
data from lower and middle level managers (N = 148) in five organizations.

Data were in the form of superior and peer rankings of performance and a self-assessment of satisfaction. The researchers calculated Pearson-product moment correlations to examine the relationships between performance and satisfaction. All correlations were significant ($p < .01$ and $p < .05$). Results revealed a stronger relationship between peer and superiors' ranking of performance and satisfaction. Relative to intrinsic and extrinsic rewards, analysis revealed that the satisfaction of higher order needs most closely related to performance. The researchers argued that it was in the best interest of the organization to provide its workers with intrinsically interesting jobs.

Lawler and Hall (1970) conducted a study to focus on and establish the distinctness of job involvement, satisfaction, and intrinsic motivation. They sought to develop independent measures of each job attitude, determine the relationship between certain job design factors and the three attitudes, and determine the relationship between the attitudes and job performance. The study participants were scientists ($N = 291$) in research and development laboratories from 22 small organizations.
The researchers collected data through a questionnaire and structured group interviews. They measured satisfaction with autonomy and self-actualization using six items similar to those developed by Porter (1962). They measured job involvement using six of the items recommended by Lodahl and Kejner (1965). Additional items measured the scientists' perception of the degree of control they had over their job, the relevance of their job, their job performance, and the amount of effort they put forth on the job. The structured group interviews collected data regarding the amount of challenge present in their initial jobs and the way projects they actually carried out jobs in the organization. The investigators rated the challenging nature of each lab and the degree the individuals worked in direct contact with the client or customer based on the interview data.

The results of a principal components analysis revealed a 3-factor solution that accounted for 48% of the common variance. Additionally, the researchers used Pearson correlations to determine the relationships between the job design characteristic, satisfaction, and motivation. The findings showed that job description measures strongly related to the satisfaction items and least strongly to the motivation items. The job performance and efforts measures
were most strongly related to the motivation items and least strongly related to the satisfaction items.

Portwood and Miller (1976) conducted a longitudinal correlation study to generate empirical evidence supporting Levinson’s (1962) theory that individuals and organizations bring expectations of reciprocity to the worker-employer relationship. The difference between the individual’s expectations and the reality of the job resulted in the individual’s job integration. They hypothesized that (a) the greater the individual’s perceived job integration (IJI) the greater their job satisfaction and (b) the greater the individual’s perceived job integration (IJI) the greater the employer’s evaluation of the employee’s satisfactoriness to the organization. Satisfactoriness, a concept developed by Scott et al. (1960), encompasses job performance, commitment, and compatibility.

The subjects of the study were randomly selected newly hired retail clerks ($N = 82$) in a Midwestern firm. The researchers measured the independent variable, level of job integration (IJI), using questionnaires they developed to determine job expectations and job descriptions. They used the Minnesota Satisfaction Questionnaire (MSQ: Weiss, et al., 1967) as a model for these questionnaires. The two dependent variables were job satisfaction and evaluated
satisfactoriness. The Minnesota Satisfaction Questionnaire measured job satisfaction. The researchers used a modified version of the Minnesota Vocational Studies instrument to measure evaluated satisfactoriness. This instrument focused on the employee’s performance, commitment, and compatibility.

The researchers analyzed the data using Pearson correlation. Results indicated that individual job integration had significant and positive correlations with overall job satisfaction ($r = .37, p < .01$) and evaluated job satisfactoriness ($r = .24, p < .05$). Findings indicate that the model used by the researchers demonstrated some validity as a description of the employee-organization relationship. The researchers admitted that there was still a large amount of unexplained variance and recommended further study.

Bhagat (1982) conducted a study to identify conditions under which strong job performance-job satisfaction relationships existed. He used moderated regression analysis to predict two situational contingencies: (a) organizational pressure for performance will be a strong situational moderator of the job performance-job satisfaction relationship, and (b) the degree of experienced time pressure would be a strong situational
moderator of the performance-satisfaction relationship. Baghat obtained sample of employees (N = 104) from 20 department stores in a tri-state region. Bhagat measured job performance using the store manager’s ratings of the participants (compared to their peers) on 11 performance dimensions. Respondents rated each performance factor using a 7-point Likert-type scale ranging from 1 (ineffective performance) to 7 (effective performance). The researcher measured job satisfaction using a short form of the Job Diagnostic Survey (JDS; Hackman & Oldham, 1975). Bhagat measured organizational pressure for performance using two 7-point scale items. He measured experienced time pressure using a scale developed and validated by Andrews and Farris (1972).

Bhagat used a moderated regression analyses to test the effects of organizational pressure for performance and experienced time pressure, the moderating variables, on the job performance-job satisfaction relationship. Job performance was the independent variable and job satisfaction was the dependent variable. The results revealed that when an individual’s performance-related behaviors are unrestricted by behavioral demands, changes in job performance are strong and positively related to changes in job satisfaction. A curvilinear regression
analysis revealed that organizational pressure for performance and experienced time pressure did not conjointly moderate the job performance-job satisfaction relationship. An analysis of the subgroups suggested that when organizational pressure for performance and experienced time pressure were low, stronger performance-satisfaction relationships exist. Bhagat suggested that managers might successfully increase performance by applying pressure, but they might also decrease satisfaction.

Johnson and Johnson (2000) conducted a cross-section study to examine the effects of perceived overqualification on satisfaction with work. They also explored positive and negative affectivity and gender differences to clarify the relationship between overqualification and job satisfaction. Watson and Clark (1984) defined negative affectivity (NA) as a predisposition to view the world in negative terms, leading to recrimination, distress, and dissatisfaction. George and Brief (1992) explained that positive affectivity (PA) reflects the predisposition to experience positive emotional states. George and Brief (1992) further explained that PA and NA as independent of each other. These understandings of affect lead to the
belief that measures of job satisfaction confound positive and negative affect.

Johnson and Johnson examined four hypotheses; (a) perceived overqualification will be negatively related to satisfaction with work, (b) negative affectivity moderates the relationship between perceived overqualification and satisfaction with work, (c) gender will not be related to positive affectivity or negative affectivity, and (d) positive affectivity moderates the relationship between perceived overqualification and satisfaction with work.

The researchers surveyed 928 members of a midwestern American Postal Workers Union. They used the 288 completed surveys (62% male and 38% female) for analysis. The 18-item Satisfaction with the Work Itself subscale of the Job Descriptive Index (Smith, Kendall, & Hulin, 1969) measured satisfaction with work, the dependent variable. The researchers determined acceptable reliability of the subscales for this study (α ranged from .73 to .97). The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) measured the mood of the respondents during the past year. Perceived overqualification was the independent variable. The perceived overqualification scale consisted of two composite indicators: mismatch and no-grow. Perceived
mismatch included four items that combined to create a scale. Perceived no-grow included four items that combined to create a scale. Age, education, tenure, salary, and total hours were controlled variables. The researchers performed a natural log transformation for salary.

Results of the regression analyses indicated a negative relationship between perceived no-grow and satisfaction with work. Perceived mismatch did not have a significant negative effect on work satisfaction. There were no significant gender differences in positive and negative affectivity scores. There was a significant negative correlation between gender and positive effect indicating that women were significantly more positive than were men. The results also showed that men were significantly more satisfied with work than were women.

Witt, Andrews, and Kacmar (2000) also explored positive and negative affectivity in their examination of the impact participation in decision-making (PDM) had on the relationship between perceptions of organizational politics and expressions of job satisfaction. The researchers explored two hypotheses; (a) Perceptions of organizational politics related negatively to expressions of job satisfaction and (b) the detrimental effect of politics on job satisfaction is weaker among individuals
who engage in consensus decision-making with their supervisor. The sample included employees of a large public-sector organization who returned a mailed survey ($N = 1,251$).

The researchers measured PDM with six items asking respondents to indicate what best describes the way the employee and the supervisor make decisions about various aspects related to the job. The items used a 5-point Likert-type scale ranging from 1 (we discuss things a great deal and come to a decision based on consensus regarding the issue at hand) to 5 (we don’t discuss things very much, and I make most of the decisions). They measured job satisfaction using the 4-item job satisfaction scale developed by Hoppock (1935). They measured organizational politics using a revised version of the 12-item Perceptions of Organizational Politics Scale (POPS; Kacmar & Ferris, 1991). The researchers used the Watson et al. (1988) PANAS to measure positive affectivity and negative affectivity.

Witt, Andrews, and Kacmar used structural equation modeling to perform a confirmatory factor analysis on the variables included in the study. The analysis resulted in a six-factor model, which confirmed that each factor measured a distinct construct. A correlation analysis revealed a negative relationship between politics scores and job
satisfaction scores and PDM scores. This confirmed the first hypothesis.

The researchers then performed a hierarchical moderated multiple regression analysis to test for interactive effect for PDM on the politics-job satisfaction relationship. Job satisfaction was the dependent variable. Politics and PDM were the independent variables. Demographic and affect (PA and NA) variables were controlled. The analysis revealed that of the demographic variables, only supervisor status and education were significant predictors of job satisfaction. The affect control variables were significant and contributed to an additional 35% of the variance in job satisfaction. The main effect of politics explained an 49% of the variance in job satisfaction. The PDM main effect was not significant. The interaction effect of politics and PDM was significant, but only explained an additional 1% of the variance in job satisfaction. The findings support previous research and suggest that the negative effects of politics on job satisfaction weaken when the supervisor shares the decision-making with the employees.

Significant findings in the studies that explore the role of job satisfaction in relationships and moderators examined variables related to the work and the worker. The
studies illuminated the relationship of meaningful work, job satisfaction, and turnover (Brown et al., 2001). Positive relationships with job satisfaction that involve the supervisor include the quality of communication and performance appraisal satisfaction (Orpen, 1997; Blau, 1999). Positive relationships between job satisfaction and task attribute and job congruence provides support for the examination of the work itself (Orpen, 1984; Jagger & Neukrug, 1992). The findings also revealed that Protestant ethic does not moderate the job scope-job satisfaction with the work itself relationship (Stone, 1976). These findings are important in that they could inform the examination of the work required of employees and the facets that contribute to successful work.

Findings specific to moderating variables dealing with the worker clarified the role of worker ability, attitudes, and perceptions in job satisfaction relationships. Job satisfaction and ability had negative relationships in some cases (Barrett et al., 1980; Mossholder et al., 1981). Self-esteem played varying roles in job satisfaction relationships (Mossholder et al., 1981; Lopez, 1982). Locus of control surfaced as a moderator of the job performance-job satisfaction relationship (Norris & Niebuhr, 1984). The findings revealed relationships between
job performance, satisfaction, and higher order needs (Lawler & Porter, 1967; Lawler & Hall, 1970). The findings also brought the idea of overqualification to the forefront as a variable that influenced job satisfaction (Johnson & Johnson, 2000). These findings could inform decisions by an organization to attend to the affective needs of the worker. The findings in this section could also inform decisions regarding job design.

The various private sector studies provided a depth of contribution to the body of knowledge about job satisfaction. They provided a knowledge base from which practitioners could make informed policy decisions and they provide a foundation for job satisfaction research in other fields. These studies are the basis for job satisfaction studies in the field of education. Much of the educational research on job satisfaction used the methodologies, instruments, and variables explored in the private sector research.

Job Satisfaction Studies in Education

The study of job satisfaction has had a presence in the field of education for over 40 years. The earlier studies used the basic methodology of the early private sector research and compared job satisfaction ratings for various groups of educators. Over time, the methodologies
and the variables studied became more intricate. This section includes a chronological review of teacher job satisfaction studies. The chronological review illuminates advances in the literature over time. The next section contains a review of administrator job satisfaction studies that further reveal developments in the education sector.

**Teacher Job Satisfaction**

Rudd and Wiseman (1962) investigated the relationship between the qualifications of students when they enter training institutions, performance during training, and success in the teaching profession. The researchers additionally sought to determine sources of teacher dissatisfaction. The subjects were trained teachers \((N = 590)\) from 11 colleges and schools of education. The sample represented 72.4% of the total group of trained teachers from the constituent institutions. Chi-square analysis revealed no significant difference in the grades of the responders and non-responders. Participant responses to four questions regarding their level of professional satisfaction measured job satisfaction. Responses ranged from 1 *(most unsatisfying)* to 5 *(fully satisfying)*. Participants also supplied head teacher rating of teacher performance, students' grades while in training, and sources of dissatisfaction. The researchers analyzed the
data for differences in satisfaction between genders, training institutions, and teaching assignment. The analysis consisted of examination of frequencies of responses for each group.

Study findings indicated that the teachers were more satisfied than not with their profession. Men were more satisfied than women. Housecraft teachers were less satisfied than other teachers. Grammar school teachers were most satisfied. Pearson correlation revealed a positive relationship between teachers' performance ratings and level of satisfaction. Men teachers were most dissatisfied with salary, poor human relations, and the status of the profession, and feelings of personal inadequacy. Women were most dissatisfied with day-to-day classroom problems.

Carpenter (1971) examined the relationship between the formal structural types of schools and classroom teacher job satisfaction. The sample consisted of teachers (N = 20) from randomly selected school systems from the Houston, Texas area. The researcher measured the dependent variable, job satisfaction, using 13 statements based on sociopsychological needs (Maslow, 1959). He calculated discrepancy score similar to that of Porter and Siegel (1965) which showed the difference between existing and
optimal job conditions. He used a formula to classify the school systems into organizational types (Barry & Sadler, 1967) to operationalize the independent variable, organizational structure. This classification resulted in three categories (tall, medium, and flat), which reflected the depth of organizational structures within the school system.

The researchers compared the mean discrepancy scores of the teachers in the different organizations. They used a test of critical difference to identify significant differences (Lindquist, 1953). Study findings indicated that formal organizational factors did influence the teachers' job satisfaction. Significant differences occurred between the discrepancy scores of the teacher groups in the different organizations for six of the 13 needs. When significant differences occurred, teachers reported less satisfaction as the tallness of the organizational structure increased.

Belasco and Alutto (1972) examined the relationship between the levels of satisfaction experienced by teachers and their state of decisional participation. They focused on the connection between distributive justice and the decision-making participation of teachers and their perceived job satisfaction. The sample consisted of
teachers ($N = 427$) employed in one urban and one rural school district in New York. Despite the differences in district locations, analysis of demographic characteristics revealed no significant differences in participating and non-participating teachers in either district.

Using a correlational design, the researchers examined the relationship between job satisfaction, decisional participation, trust, job tension, authoritarianism, role conflict, perceptions of administrative influence, and attitudes. Participant responses to four items focused on the inducements necessary for an individual to leave operationalized job satisfaction, the independent variable. Trichotomization of job satisfaction into low, moderate, and high created three levels for analysis. The researchers calculated decisional participation, the dependent variable, by computing the difference between rating of teachers' current and desired participation in decision-making. The researchers measured the remaining variables through various scaled response items.

Results of an analysis of group means revealed significant systematic relationships between teachers' satisfaction levels and their state of decisional participation. Decisionally deprived teachers had lower satisfaction. The most satisfied teachers were older
females teaching in elementary schools. Satisfied teachers reported less militant attitudes. Trust and role conflict were not significantly associated with satisfaction.

Grassie and Carss (1972) examined the relationships between school structure, leadership quality, and teacher satisfaction using canonical correlation as the method of analysis. The researchers attempted to expand on previous research by using multivariate analysis to clarify the direction of influence and isolate factors most highly associated with satisfaction. The subjects were Australian teachers \((N = 441)\) of general subjects. The researchers collected data from a five-part questionnaire. The questionnaire included (a) personal data, (b) a Professional Role Orientation Scale (Hrynyk & Miklos, 1967), (c) the Organizational Climate Description Questionnaire (Halpin, 1966), (d) A Bureaucracy Scale (Hage & Aiken, 1967), and (e) a Satisfaction Scale (Hage & Aiken, 1967).

Principal components analysis with varimax rotation resulted in factor scores used in further analysis. The researchers used factor scores of teachers on one component of the Professional Role Orientation Scale to group teachers into high and low groups based on their belief in the importance of a theoretical underpinning to their work.
as teachers. Subsequent analysis sought to determine if there were differences between the groups in the patterning of the structural and leadership variables associated with satisfaction with work and colleagues, the direction of the influence between the sets of variables, and the relationship of the individual structure and leadership variables with the satisfaction measures.

Results of the canonical correlation analysis revealed one significant canonical correlation. Satisfaction with work and colleagues correlated positively with leadership quality and negatively with hierarchy of authority. Correlations were higher for the high group than for the low group. The researchers explain this result in terms of the amount of redundancy between the sets of variables. They surmised that members of the high group were more likely to express satisfaction with work and colleagues in a setting where the leader provides opportunities to participate in decision-making and the absence of a rigid hierarchy. The Leadership quality was not an important cause of satisfaction for members of the low group. Overall findings suggested that administrators could manipulate variables to affect teacher's satisfaction. This manipulation would be most effective with teachers who
believe in the importance of a theoretical underpinning to their work as teachers.

Hollon and Gemmill (1976) compared the work-related attitudes of male and female professors. They hypothesized that female professors would experience less perceived participation in decision-making, greater job related tension, less job involvement, and less overall job satisfaction. The participants, full-time teaching faculty members (N = 321) in seven two-year public community colleges, received and returned questionnaires by mail (43% response rate).

The independent variable was gender. The dependent variables were perceived participation in decision-making, job related tension, job involvement, and job satisfaction. A slightly modified version of a 4-item scale developed by Vroom (1960) measured perceived participation in decision-making. A short version of Lodhal and Kejner (1965) measured job involvement. An additive composite score on the Job Related Tension Index (Kahn, 1964) operationalized job related tension. A slightly modified version of Vroom’s (1960) Attitude Toward Job Scale measured overall job satisfaction. All measures of the dependent variables utilized 5-point Likert-type scales and had acceptable reliability coefficients (α ≥ .70).
Hollon and Gemmill used t-tests to find significant differences in the dependent variables. Findings confirmed the researchers' hypothesis that female professors reported experiencing less perceived participation in decision-making, less job involvement, more job related tension, and less overall job satisfaction.

Holdaway (1978) examined the relationship between overall and facet satisfaction of teachers. He attempted to gather information relevant to Herzberg's two-factor theory that satisfaction and dissatisfaction exist on two separate continua. Participants were teachers (N = 801) representing 21 school systems in Alberta, Canada. The researcher constructed a questionnaire to measure overall satisfaction, and satisfaction related to 58 work related facets. The respondents also provided personal information, their opinions on changes needed, and they named the facets that contributed most to their overall satisfaction and dissatisfaction. The participants rated items on a 7-point Likert-type scale ranging from 0 (not relevant or not applicable) to 7 (neutral). The researcher did not randomly select the sample and opted to reported descriptive rather than inferential statistics. They dropped the response categories of neutral and not relevant or not applicable, collapsed all of the satisfied categories into one
(satisfied), and collapsed the dissatisfied categories into one (dissatisfied).

Respondents reported the highest percentages of satisfaction in the areas of interpersonal relationships with the teaching assignment. Areas of greatest dissatisfaction included consultation, decision-making, collective bargaining, preparation time, and methods used for making staffing decisions. Results of a Pearson correlation revealed positive relationships between overall satisfaction and facet satisfaction with r-values ranging from .14 to .61. The most frequently reported desires for change were smaller classes and increased preparation time.

Holdaway conducted a factor analysis to identify clusters of satisfaction variables and to determine which cluster correlated with overall satisfaction. Four 7-factor varimax solutions resulted; (a) recognition and status, (b) students, (c) resources, (d) teaching assignment, (e) involvement with administrators, (f) work load, and (g) salary and benefits. Overall satisfaction loaded on the recognition and status factor. The free-responses of the participants revealed that the aspect that most contributed to overall satisfaction was working with students. Attitudes of society and parents to education contributed most to overall dissatisfaction.
Overall findings provide mixed support Herzberg’s two-factor theory. While the work itself more closely related to overall satisfaction, some elements of the work relate to overall dissatisfaction. Holdaway suggested that future research give more attention to the variables that relate to the quality of the working life of teachers and administrators.

Bridges (1980) examined the relationship between job satisfaction and employee absenteeism within educational organizations. He focused the study on the role of work interdependence in the satisfaction-absenteeism relationship. The subjects were elementary school teachers (N = 488) from 36 schools. The participants received questionnaires at a school-wide faculty meeting.

The researcher computed absenteeism, the independent variable, using a three-step process resulting in an index of absenteeism. He measured job satisfaction using the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969). The four dimensions of job satisfaction (work itself, pay, supervision, co-workers) served as the dependent variables. Bridges calculated work interdependence by dividing the participants reported time spent each week in school by the time they worked in isolation. He then separated the
teachers into one of three groups (high, moderate, and low work interdependence).

The researcher conducted a stepwise multiple regression for each of the three levels of work interdependence. Absenteeism was the dependent variable and job satisfaction facets were the independent variables. Several variable were controlled. The results of the analysis revealed that all four dimensions of job satisfaction had significant negative correlations with absenteeism in a condition of high interdependence. Although this relationship surfaced, none of the regression analyses accounted for any more than 7% of shared variance. Bridges concluded that job satisfaction was not a major factor in absenteeism. He further suggested that this result could have been due to an influence in job design.

Miskel, DeFrain, and Wilcox (1980) tested the combined predictive powers of expectancy motivation theory as a cognitive process model, the concepts of central life interests and volunteerism, and personal and environmental characteristics in relation to job satisfaction and job performance. The researchers defined expectancy motivation as a conscious process of making decisions based evaluated possibilities and importance levels. They hypothesized that expectancy motivation as a total and extrinsic and
intrinsic components separately would significantly predict job satisfaction and job performance.

Expectancy motivation force was one of the independent variables. The researchers conducted a pilot study, factor analysis, and used a panel of experts to determine the psychometric properties of an instrument they created to measure this independent variable. A modified 4-item scale measured the additional independent variables, central life interests and volunteerism. The dependent variables were job satisfaction and educator job performance. The researchers operationalized job satisfaction with a 5-item measure for assessing the general sentiments toward the job (Miskel, Glasnapp, & Hatley, 1975). Principal or department chair rating of teacher's behavior in terms of originality, organization, empathy, sociability, and buoyancy operationalized job performance. The researchers reported reliability and validity for all measurement scales used in the study.

The subjects of this correlation study were randomly selected public school faculty \((N = 102)\) and university faculty members \((N = 131)\). They responded to questionnaires and mailed them directly to the researchers. The researchers used stepwise multiple regression to test the hypothesized relationship between the independent and
dependent variables. They performed separate regression analyses for each sample group.

The study results partially supported the hypotheses. Overall expectancy motivation, volunteerism, and central life interest were significant predictors of job satisfaction for both public school and university groups ($p < .05$). Personal and environmental characteristics did have significant correlations with the dependent variables and therefore did not enter the regression equation. Low levels of explained variance for expectancy force motivation made it the only predictor of perceived job performance. The findings showed the expectancy motivation model to be a significant predictor of job satisfaction for both public school and higher education faculty.

Knoop (1981) examined the relationship between teachers' job satisfaction and their estimated organizational goal attainment. He used a correlation design to determine which job satisfaction dimensions correlated with the teachers' estimate of their school's goal attainment. The participants were 311 teachers from urban elementary schools. The school was the unit of analysis ($N = 76$).

The Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969) measured five dimensions of job satisfaction
that included satisfaction with: (a) the work itself, (b) the pay, (c) the opportunities for promotion, (d) supervision, and (e) colleagues. The researcher summed the scaled responses and calculated a mean score for each school. A modified version of a scale developed by Georgopoulos and Mann (1962) measured goal accomplishment. The participants responded to five items measuring the perceived quality of teaching, and the teaching of basic skills, reasoning and applied knowledge, adaptation, development of student potential, and ability to relate to and communicate with others. The sum of the scores created an index of goal accomplishment. High scores indicated a high degree of goal attainment.

Examination of the descriptive data revealed highest teacher job satisfaction with colleagues and supervision. The mean for overall goal accomplishment was higher than the means of any of the sub goals. An initial Pearson correlation revealed moderate correlations of the five job satisfaction dimensions and significant intercorrelations between all goals. The correlation matrix demonstrated general support for the hypothesized correlations between teacher satisfaction with work, supervision, and colleagues and goal attainment. Overall goal attainment, teaching basic skills, and the ability to relate to and communicate
with others significantly and positively correlated with teachers' satisfaction with colleagues, supervision, and the work itself.

A subsequent stepwise multiple regression analysis in which goal attainment was the dependent variable and the five satisfaction dimensions were the predictors resulted in a model that explained 27% of the variance in job satisfaction. Satisfaction with colleagues and supervision were the only two JDI dimensions that significantly contributed to the explained variance. This study isolated job satisfaction dimensions that positively related to goal accomplishment.

Wiggins, Lederer, Salkowe, and Rys (1983) used Holland's (1973) structural theory of person-environment interaction as the basis of their correlation study of job satisfaction. Holland's theory dealt with the congruence between a person's personality and their environment and its role in job satisfaction. They also examined differentiation, the extent to which one favors certain occupations or ways of being over others. They hypothesized that (a) overall job satisfaction would be highest for people in congruent environments and (b) people with highly differentiated scores on an interest inventory would be
more satisfied with their jobs than would those with undifferentiated or uniform scores.

The subjects were teachers \((N = 247)\) from four northeastern states. The researchers randomly selected participants from a list obtained from the state departments of education. The participants responded to and returned surveys via U. S. mail. The surveys contained measures of the dependent variable (job satisfaction) and the independent variables (congruence, differentiation, sex, age, years in present job, years in teaching, and the six Holland codes). A version of the Job Satisfaction Blank (JSB; Hoppock, 1935) measured the dependent variable using responses to four Likert-type items. The Vocational Preference Inventory (VPI: Holland, 1977a) measured the participant's level of congruence and supplied raw scores used in calculating differentiation. The researchers assigned Holland (1977b) codes based on the subject matter taught by each teacher.

Wiggins, Lederer, Salkowe, and Rys used ordinary least squares regression to analyze the data. The variables of age, sex, years in present job, and years in teaching did not remain in the analysis. One resulting regression model showed that compatibility, the measure of congruence, was the single best predictor of job satisfaction \((\beta = .51, p <\)
Differentiation was the next best predictor ($\beta = .19, p < .001$). The other regression model tested the contribution of the compatibility $\times$ differentiation interaction. The interaction did not explain additional variance in job satisfaction. Overall findings support the hypothesis that a positive relationship existed between job satisfaction and congruence and between job satisfaction and differentiation.

Hoy and Sousa (1984) examined the relationships between delegated decision-making and loyalty, job satisfaction, and hierarchy of authority. The researchers developed an index of the principal's propensity to delegate decisions to subordinates, and then examined the relationships with teachers' loyalty to the principal, teachers' job satisfaction, and teachers' perception of the degree of hierarchical control. The sample consisted of public high schools ($N = 55$) in 11 counties of New Jersey. The sizes of the high schools ranged from 339 to 2400, but were reportedly representative of the size of high schools in New Jersey.

Principal interviews and subsequent item analysis resulted in operationalization of the independent variable, propensity to delegate. The researchers used the principals' identification of the level of decision-making
as a means of determining the extent to which the principal delegated decision-making authority. A ratio of subordinate decisions to the number of within-school decisions yielded an index of delegation that ranged from 0 to 1.00. Grouping of the principals based on some or no delegation created two levels of the independent variable. The researchers randomly selected faculty members at each school to respond to a survey that measured the dependent variables (hierarchy of authority, loyalty, and job satisfaction). They combined the responses to create a mean score of the dependent variables for each school. An analysis of variance revealed that principals who delegated decisions had teachers who described authority structure as less rigid than teachers who had principals who did not delegate. Principals who delegated decisions had teachers who were significantly more satisfied and loyal.

Schneider (1984) sought to expand on previous research on decision-making involvement by examining the nature of involvement and its relationship to job satisfaction. She examined the relationship between decision-making involvement and job satisfaction, and the interactions between levels of involvement, teachers' interests and expertise in decision issues, and job satisfaction. The researcher randomly selected 12 teachers from each of 23
randomly selected schools resulting in 276 teachers. The final sample consisted of teachers ($N = 266$) who returned the questionnaire.

The questionnaire measured the independent variables of decision condition, interest, and expertise. The dependent variable was job satisfaction. A decision interest score resulted from summing the interest scores and dichotomizing to create two levels of interest (high and low). Decision condition scores resulted from calculating the difference between actual and desired levels of involvement and trichotomizing to create three levels (low, medium, and high). The researcher computed a correlation matrix of the independent variables. The matrix revealed a high correlation between decision interest and decision expertise. She concluded that the two scales measured the same variable and dropped expertise from further analysis. The job satisfaction portion of the survey yielded a composite score of job satisfaction based on 27 items, which assessed nine scales.

Schneider used a two-way analysis of variance (ANOVA) to test the main and interactive effects of levels of interest and decision involvement on job satisfaction. Results of the ANOVA revealed no significant difference between the respondents' level of interest in decision-
making and job satisfaction. Neither was there a significant interactive effect between the levels of interest and decision involvement and job satisfaction. There was a significant positive relationship between the respondents' level of involvement and job satisfaction.

Galloway, Boswell, Panckhurst, Boswell, and Green (1985) identified the sources of teacher satisfaction and dissatisfaction, examined the relationship between overall satisfaction and facet satisfaction, and compared overall and facet satisfaction for different groups of teachers. The researchers based their study on Herzberg's (1959) two-factor theory that posited the possibility to be both satisfied and dissatisfied at the same time. The study participants were a stratified random sample of New Zealand primary school teachers (N = 292). The researchers used a 42-item questionnaire to measure job satisfaction. Participant responses ranged from 1 (very dissatisfied) to 5 (very satisfied). An examination of the satisfaction ratings revealed that 80.1% of the teachers responded as very or fairly satisfied. An analysis by item revealed the highest satisfaction with relationships with pupils and colleagues and the least satisfaction with the promotion methods and the attitudes of society towards education. Correlation of overall satisfaction with each of the 42
items on the questionnaire resulted in all but five significant correlations. All of the correlations were positive.

The researchers conducted a principal components analysis followed by a varimax rotation resulting in a 5-factor solution. The five factors formed the subscales of the job satisfaction measure. Several one-way analyses of variance tested for differences in the satisfaction ratings of different groups of teachers. The dependent variables were ratings of overall satisfaction, the mean ratings from the entire questionnaire, and the five subscales identified from the principal components analysis. The independent variables consisted of information provided by the teachers or head teachers (age, sex, head teacher duties, head teacher's age, adequacy of facilities, playground space, and pupil intake).

The results indicated an increase of satisfaction with age. Teachers who had young head teachers with teaching responsibilities reported higher satisfaction. Additionally, teachers with over 75% of students with European Origin reported higher satisfaction.

Lowther, Gill, and Coppard (1985) conducted an exploratory study that focused on the relationships between teacher age and the determinants of job satisfaction.
Kalleberg's (1977) theory of job satisfaction that incorporated job values and job rewards as determinants of job satisfaction formed the basis of this study. Data for this study originated in three separate national probability studies of employment. Subsets of teachers in each of the studies created the sample (N = 182) for this study. Teachers responded to interview questions about job satisfaction, what they valued in a job, and the rewards they derived from a job. The average of teacher responses to five questions about job satisfaction with work in general operationalized the dependent variable. Responses to questions about the components of work value and work reward operationalized the independent variables.

Initial analysis of the data revealed results consistent with Galloway et al. (1985) in that overall job satisfaction increased with age. The researchers discussed a possible cohort-effect that included increased financial gain and seniority benefits with age and an erosion of expectations of job values with age. Multiple regression determined which independent variables predicted job satisfaction. Because age significantly correlated with the other independent variables, the researchers created two age groups from each of the three original data sets. They analyzed a total of six regressions equations. Each
equation was significant and in five of the six models, the linear combination of the independent variables explained more than 30% of the variance in the job satisfaction. Overall findings indicated that significant predictors of job satisfaction were intrinsic for younger teachers and extrinsic for older teachers.

Avi-Itzhak (1988) investigated the needs of teachers as predictors of job satisfaction. The overall purpose was to (a) assess the needs of kindergarten teachers, (b) identify the needs, organizational factors, and teachers' characteristics which significantly discriminated between satisfied and dissatisfied teachers. The work of Maslow (1970) and Herzberg (1959) on need and motivation theory served as the conceptual framework for the study. Job satisfaction was the dependent variable and perceived needs, organizational factors, and background variables were the independent variables. The subjects were female kindergarten teachers ($N = 93$) from one school district in a major city of Israel.

The teachers completed an adapted instrument developed by Porter (1962) that contained 19 items with 5-point Likert-type scales of agreement. Lower scores represented disagreement; high scores represented agreement. The response to a single item, "If I could reconsider my career
choice, I would choose to be a kindergarten teacher," operationalized the dependent variable. Teachers' response to the item grouped them into one of three categories, (a) dissatisfied, (b) satisfied, or (c) not committed. The researcher used factor analysis to extract categories for the independent variables. The factor analysis resulted in five factors that corresponded to Maslow's hierarchy of needs.

A forward stepwise discriminant analysis determined the relative contribution of the independent variables that discriminated between satisfied and dissatisfied teachers. The teachers in the not committed group were not included in the discriminant analysis. Data analysis eliminated the lower needs of security and social, the organizational factor of students' age, and the background variable, teacher's place of residence from the discriminant variables.

The factor analysis results indicated that teachers' lower order needs were more satisfied than the higher order needs. Additionally, teachers were more satisfied by extrinsic factors rather than intrinsic factors. The discriminant analysis indicated that satisfied teachers reported greater fulfillment of all three higher order needs (esteem, autonomy, and self-actualization). Satisfied
teachers were also older with more teaching experience and more likely to be a part of a school with a high degree of organizational complexity. Of all of the discriminant variables, the three higher order needs played the most significant role in discriminating between satisfied and dissatisfied teachers. Overall, the veteran kindergarten teachers in the study were more satisfied on higher levels than were the newer kindergarten teachers.

Neumann, Reichel, and Abu Saad (1988) examined the organizational climate and job satisfaction of elementary teachers of a Beduin school in Israel. This study attempted to examine the teachers' perspective of using a modernist approach in a traditionalist society of the Beduin. The subjects were teachers ($N = 185$) employed in the Beduin elementary school system in the southern part of Israel. The teachers were predominantly males who responded to a Hebrew written survey.

The survey contained three parts that measured the dependent and independent variables. A revised version of a instrument used by Wanous and Lawler (1972) measured 22 facets of job satisfaction. Responses to a revised version of Horowitz and Zak's (1979) Organizational Climate Description Questionnaire (OCDQ) operationalized organizational climate. The researchers also collected
personal data such as gender, age, marital status, origin, main teaching function, and grade.

Neumann, Reichel, and Abu Saad conducted a factor analysis for the job satisfaction and organizational climate variables. The factor analysis resulted in two factors for job satisfaction, which included job or task issues and interaction with others on the job. Two factors also surfaced for organizational climate, relations between teachers and principal and negative feelings about school atmosphere. The researchers used two separate stepwise multiple regressions as the method of data analysis. In the first stepwise regression, job satisfaction associated with the job or task was the dependent variable. In the second stepwise regression, job satisfaction associated with interaction with others on the job was the dependent variable. The independent variables, the two climate factors, grade, origin, nature of instruction, marital status, number of classes taught, and the number of classes in the school remained in both analyses.

The results of the first regression analysis revealed a moderate amount of variance ($R^2 = .33$) attributed to the combination of independent variables. Principal-teacher relations surfaced as the variable that contributed most to the regression equation ($\beta = .46$). The second regression
analysis resulted in a small amount of explained variance \( R^2 = .13 \) and number of classes taught contributed the most to the regression equation \( \beta = -.26 \). Overall findings indicated that climate factors had predictive power, but only in reference to job or task related job satisfaction.

Conley, Bacharach, and Bauer (1989) investigated the organizational work characteristics that predicted career dissatisfaction among elementary and secondary teachers from 87 school districts in New York state. Very little attention had been given to the school work environment in previous studies. The researchers conceptualized career dissatisfaction (the dependent variable) based primarily on Hall's (1976) model of career development. Additionally, they used six constructs of organizational theory (bureaucracy, power, communication, supervision, career development, and work environment) to frame the independent variables. They aggregated the data for analysis at the school level.

The researchers examined each of the six theoretical constructs by testing ten hypotheses. Each hypothesis examined the relationship between career dissatisfaction and the independent variables. The sample consisted of elementary \( N = 42 \) and secondary \( N = 45 \) schools in 87 school districts. The 87 districts represent a random
sample stratified according to geographic location, size, wealth of the district, and district expenditures. The researchers conducted separate data analysis for the elementary and secondary schools. They used a correlation design with multiple regression as the method to analyze survey data from the teachers in these schools. They operationalized the dependent variable, career dissatisfaction, as mean school scores based on teacher ratings of four items with Likert-type scales ranging from 1 (very satisfied) to 4 (very dissatisfied). They measured the 13 independent variables using several different survey items.

The researchers used a three-step process of analysis. First, they correlated the independent variables with career dissatisfaction. Next, they grouped the independent variables and regressed them on career dissatisfaction. Finally, they conducted a stepwise regression analysis. Initial correlation of the independent variables with career dissatisfaction revealed nine significant relationships at the elementary level and seven significant relationships at the secondary level. Role ambiguity had the highest correlation coefficient for both levels (Elementary $r = .64$, Secondary $r = .74$, $p < .001$).
Next, the researchers grouped the independent variables according to their theoretical constructs and regressed them on the dependent variable. Role ambiguity surfaced as a significant predictor of career dissatisfaction at both levels. Results of the stepwise regression analysis indicated four predictors at the elementary level and two significant predictors resulted at the secondary level. Role ambiguity surfaced as a significant predictor at both levels. These results further magnify the differences in the school levels and emphasize the importance of examining role ambiguity as an independent variable.

Reyes (1990) examined the relationships among teacher work orientation, organizational commitment, and job satisfaction. The participants were a stratified random sample of kindergarten through grade 12 teachers ($N = 133$) from a midwestern state. He stratified the sample into small, medium, and large based on previous research connecting organizational size to attitudinal behavior. The participants responded to mailed surveys that contained measures of commitment and job satisfaction, the dependent variables, and work orientation, the independent variable.

Reyes developed an instrument to measure work orientation based on the theoretical constructs (normative
multiple regression by dummy coding the categorical variables. Although none of the variables was statistically significant in explaining the variance in job satisfaction, the total years of teaching experience did significantly explain variance in commitment. The fewer the years of experience, the higher they rated their commitment. This study was the first to connect teacher commitment, job satisfaction, and work orientation.

Borg and Riding (1991) also examined career commitment in their survey study of occupational stress and job satisfaction. They examined (a) teacher stress, commitment, and satisfaction, (b) the sources of stress for teachers, (c) the relationship between stress, satisfaction, and commitment, and (d) the demographic differences between subgroups of teachers. The sample consisted of primary school teachers (N = 710) from the Mediterranean island nation of Malta and Gozo.

Participants responded to a three-part questionnaire. The first part gathered demographic information such as age, type of teaching position, years of experience, and age group taught. The second part contained three items, measuring stress, job satisfaction, and commitment. The final section consisted of 20 items that identified sources of stress in the teacher's work environment. The researcher
used various analysis methods to answer the research questions.

Examination of the descriptive data revealed that 32.6% of the teachers found their jobs very or extremely stressful. Seventy-five percent were fairly to very satisfied with their jobs. Only 35.4% of the teachers reported that they would choose teaching as a career if they were to start life again. Five two-way ANOVAs with stress as the dependent variable revealed significant main effects for age group taught and years of experience. Teachers of older classes and teachers with 20 years of experience reported greater stress than did their counterparts. A one-way ANOVA and independent t-test with job satisfaction as the dependent variable revealed that teachers of above average and average classes and females reported greater satisfaction than did their counterparts. Five two-way ANOVAs with commitment as the dependent variable revealed significant main effects for years of experience, age group taught, and the interaction of sex by years of experience. Teachers of younger children and females were more committed than were their counterparts.

The researchers conducted an exploratory factor analysis with varimax rotation to identify the components underlying the 20 sources of stress items in the
questionnaire. The resulting four-factor solution (pupil misbehavior, time/resource difficulties, professional recognition needs, and poor relationships) accounted for 51.4% of the variance. Borg and Riding derived an acceptable consistency reliability estimate for each of the four subscales. A three-way repeated measures ANOVA with the four factors as dependent variables revealed significant main and interaction effects. For females, the most stressful factor was pupil misbehavior. For males, the first three factors were equally stressful. Teachers of older classes reported more stress related to time/resource difficulties. Teachers of above average/average ability classes reported more stress due to time/resource difficulties and professional recognition needs.

A Pearson correlation between stress, job satisfaction, commitment, and the stress factors revealed a negative significant relationship between stress and job satisfaction and commitment. Teacher stress positively and significantly correlated with each of the four stress factors. Job satisfaction negatively and significantly related to each of the four stress factors. Commitment and each of the four stress factors had significant negative relationships.
Lobosco and Newman (1992) examined the relationship between teachers' perceptions of real and ideal services provided for children with special needs and general job satisfaction. They defined special needs as students who were gifted and talented and those with learning disabilities. The subjects of this correlation study were kindergarten through grade 12 teachers (N = 573) randomly drawn from an 11 county area of New York state. The researchers selected teachers certified in elementary, secondary, special education, and reading for inclusion in the study. The participants responded to an anonymous survey that measured satisfaction with intrinsic and extrinsic rewards of teaching (the dependent variable) and the levels of service provided to special needs students (the independent variables). The researchers operationalized satisfaction using the composite score derived from responses to items using a 4-point Likert-type scale ranging from 1 (strongly agree) to 4 (strongly disagree). Reported perceptions of both real and ideal services provided by the school using responses to five Likert-type scaled items measured the independent variable.

Results of a series of multiple regression analyses revealed that perceptions of real and ideal services for
special needs students significantly predicted general satisfaction. Overall, teachers' report of reality revealed that working with gifted and talented students positively predicted satisfaction and working with students with learning disabilities negatively predicted satisfaction. Teachers' report of the ideal revealed inverse relationships. The results remained the same when the researchers analyzed responses for teachers without special education certification.

Conley and Levinson (1993) sought to explore the relationship between teacher job satisfaction and work redesign. They examined the interrelationships between work redesign, work rewards, values and satisfaction. The sample consisted of teachers (N = 232) in four districts with career ladder plans. The researchers operationalized job satisfaction, the dependent variable, as a composite score derived from responses to four items. Five independent variables (participation in work redesign, intrinsic rewards, extrinsic rewards, intrinsic values, and extrinsic values) underwent factor analysis to identify the dimensions of the conceptual framework. Individual and organizational variables served as control variables to account for differences apparent in the sample.
The researchers used a stepwise multiple regression for the less experienced teachers and then the experienced teachers to examine the predictive power of the independent variables. The analysis resulted in two models. In the first model, the proportion of variance attributable to the schools was only significant for the less experienced teachers \( R^2 = .24 \). In the second model, a significant increase in explained variance was attributable to work redesign, rewards, values, and individual level controls for both groups of teachers (increase of 33% explained variance for both groups).

Further analysis revealed that participation in work redesign was a significant predictor for experienced teachers only. Intrinsic rewards were strong positive predictors of job satisfaction. Extrinsic rewards were only strong predictors for the less experienced teachers. Overall results emphasize the importance of examining the difference in experience levels of teachers when investigating job satisfaction.

Archbald and Porter (1994) examined the influence of curriculum control policies on teachers' sense of autonomy and job satisfaction. The purpose of the study was to address criticisms brought on with educational reforms eluding to the notion that state and district curriculum
control policies regarding textbook adoption, curriculum guides, and testing reduced teachers' feelings of autonomy. The researchers surveyed mathematics and social studies teachers (N = 195) from six urban school districts in California, Florida, and New York. The school districts represented the policy context under study.

Three categories of centralization identified the levels of the independent variable. Ratings on various scales that measured perceptions of curriculum control policies operationalized the dependent variable. The researchers used analysis of variance (ANOVA) of the data from the resulting sample. Post hoc Scheffé test determined which category means differed from each other. The results for testing and curriculum were consistent with the assumptions that teachers in higher state and district control environments would express lower autonomy. There was no difference in ratings for textbooks regardless of the level of control. Teachers in all categories also responded with high ratings on level of control of pedagogy. There was only a significant difference in job satisfaction and standards ratings between low and medium control groups. Overall results indicate that the teachers in the study felt moderate control over the content taught.
They reported being moderately satisfied and feeling very much in control of how they taught.

Taylor and Bogotch (1994) examined the effects of teacher participation in shared decision-making on student and teacher outcomes. The study took place in a district experiencing restructuring. At the time of the study, changes in the administration resulted in several schools experiencing decreased ability to make decisions at the school level. The sample consisted of elementary and senior high schools (N = 33) drawn from a pool of schools: half that participated in a restructuring pilot and half that did not. The sample represented a match of restructuring and non-restructuring schools. Teachers from the sample schools completed a questionnaire developed by Bacharach et al. (1990) that measured participation in decision-making. Participants responded to items by indicating the extent to which they actually participated in decision-making and the extent to which they desired to participate in decision-making. Typically, the difference between these two scores created a discrepancy score. The authors only used scores for actual participation for the main analysis of this study. The researchers used mean scores for actual participation to divide the sample into high and low participation groups. The groups became the independent
variables in a subsequent multivariate analysis of variance (MANOVA).

The Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969) measured job satisfaction. Teachers who responded to the first questionnaire also received the JDI. Representation from high and low participation school facilitated comparability. The researchers obtained data on teacher and student attendance and student achievement from the district's central office.

The researcher used a principal components analysis with varimax rotation to identify dimensions of decision-making. The analysis resulted in four factors that accounted for 57% of the variance. The four dimensions entered a correlation matrix with the school-level variables and the subscales of the JDI. The matrix revealed a significant, positive relationship between student attendance and the participation dimension involving what and how to teach and subject/grade assignment ($r = .43, p \leq .05$). This relationship produced a strong effect size of 18%. While additional significant relationships emerged between the subscales of the JDI and the participation dimensions, none resulted in effect sizes greater than 6%. Satisfaction with the work most strongly correlated with
participation in managerial decision-making \( r = .24, p \leq .001 \).

Finally, the researchers conducted two MANOVAs to determine differences between the two participation groups. The first MANOVA tested for differences in the JDI subscales, the dependent variable, and was not significant. The second MANOVA tested for differences on the school-level variables, the dependent variable, and was not significant. Significant findings revealed that teacher participation in decisions did not influence teacher or student outcomes. They added that changes in the administration during restructuring could have caused these results.

Lam, Foong, and Moo (1995) examined the relationships between the quality of work life, commitment, job satisfaction, and withdrawal cognition. The authors defined withdrawal cognition as the "thought and feeling of leaving the teaching profession" (p. 230). They created instruments to measure the variables under study and tested a path model of withdrawal cognition. The subjects were nearly all of the teacher interns \( N = 342 \) from a teacher training institution in Singapore. The interns taught for a period of ten weeks between their first and second years of training. The researchers included three endogenous
variables (job satisfaction, career commitment, and withdrawal cognition) and four exogenous variables (autonomy, status, competency, and collegial relationships) in their hypothesized path model.

Seven instruments with 38 items measured the variables. All items used a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). A factor analysis of the response data revealed seven different factors representing each of the seven instruments providing support of the one-dimensional nature of each instrument. Subsequent LISREL analysis of the data resulted in structural coefficients for the proposed path model. The reduced model did not include collegial relationships, as it failed to have a significant on any of the three endogenous variables.

In the resulting model, the exogenous variables accounted for 62% of the variance in the endogenous variables. Both career commitment and job satisfaction had negative direct effects on withdrawal cognition. The direct effect size of job satisfaction was over double that of commitment (-.46 and -.22 respectively). Autonomy had the largest direct effect on job satisfaction. Status had a direct, negative effect on withdrawal cognition. The
resulting path model revealed variables rarely used in combination to explain effects on withdrawal decisions.

Pearson (1995) examined the relationships between teacher autonomy and a set of attitudinal and work-related variables. The researchers used a correlational design to determine which combination of variables predicted teacher autonomy. The subjects were school teachers \((N = 412)\) from a large urban school district in Florida. Participants responded to a mailed survey comprised of four sections. The first section collected demographic information. The remaining sections contained items that measured teachers' work environment (paperwork load, instructional load, job stress, and satisfaction with current salary), autonomy, and attitudes towards teaching as a career, students, parents, and school administration. The instrument produced reliability coefficients that ranged from .76 to .92.

Pearson used prior research to determine which variables would enter a blockwise multiple regression. An initial correlation matrix revealed the highest relationship existed between the work-related variable set and autonomy. Teachers with a high degree of autonomy were more satisfied with their job, were slightly more satisfied with their salary, perceived a lighter instructional and paperwork load, and perceived less stress.
The blockwise multiple regression began with the work related variables entering first and the attitudinal variables entering second. Autonomy was the dependent variable. The work-related, attitudinal, and demographic variables were independent variables. Teaching level, the only demographic variable used in analysis, entered last. The analysis resulted in 20% of explained variance after the first step, and an additional 2% and 3% of explained variance for the second and third steps, respectively. Examination of the beta coefficients revealed four significant predictors of autonomy: (a) job satisfaction, (b) perceived paperwork load, (c) positive attitude towards students, and (d) teaching level. Specifically, predictive autonomy was higher for secondary teachers.

Evans (1997) examined the factors that influenced the morale and job satisfaction of teachers in an English primary school. The researcher used a four-stage case study design that extended over a five-year period. The first stage consisted of informal, unstructured, and unsystematic observations of day-today life at the primary school. The author intended to reveal the level of teacher morale and identify influential factors. The researcher assumed a participant observer role by becoming a part-time teacher in the school. This role provided direct access and the
ability to collect contextual background information on site. Observation was the primary method of data collection.

The second stage of the study consisted of semi-structured interviews conducted almost one year after the researcher left the teaching position. The interview contained general questions and questions related to the research questions. Twenty-two teachers from the school participated in the interviews. The school secretary and one additional teacher with connections to the school also participated ($N = 24$).

During the third stage, participants completed questionnaires. The questionnaires measured agreement among the participants on the concerns and issues raised in the interviews and provided a method of matching information given in the interviews. The final stage consisted of follow-up interviews to determine if competing concerns affected the teachers' moral and satisfaction levels.

The researcher used constant comparative analysis by cyclically reducing, displaying, and drawing conclusions from the data. Evans verified conclusions through member checking and using an independent judge. The researcher concluded that dissatisfaction and low moral were attributed to school-specific factors such as leadership,
management structure, lack of expertise of the school leader, staff development, and school policy.

Verdugo, Greenburg, Henderson, Uribe, and Schneider (1997) used a path-analysis approach to examine the effect of a theoretically derived set of school organizational factors on teachers' job satisfaction. They expanded previous research by focusing on two perspectives of organizational theory: bureaucracy and schools as communities. The researchers incorporated the perspectives with that of statistical product control, based on the participation of the worker in the decision-making process. The sample, a nationally stratified random sample, consisted of teacher members (N = 1,585) of the National Education Association.

The path model contained ten variables. The exogenous variables were bureaucracy, students' socioeconomic background, teachers' commitment to education, total years of teaching, the achievement level of students in respondent's school, and a measure of sampling bias (Lambda). The intervening variables were the teachers' sense of legitimacy and community. The endogenous variables were teachers' satisfaction with their job autonomy and their overall job satisfaction.
Results of the path analysis revealed causal models of teacher job satisfaction with autonomy and overall satisfaction. Bureaucracy had effects on community through legitimacy. The authors also determine statistical product control item to be important in analysis of overall job satisfaction.

Shann (1998) used a team of administrators, teachers, and university-based researchers, to focus on the professional satisfaction of teachers in urban middle schools. She attempted to determine the congruence of teachers' perceptions of the importance of various aspects of their jobs and their satisfaction with those job aspects. She also examined whether these perceptions differed by school. Shann distributed questionnaires and university-based researchers conducted interviews of 58 teachers. She used student achievement data to make distinctions between schools by achievement level. Then, she conducted an analysis of variance (ANOVA) to determine differences in the group mean scores for job satisfaction, the dependent variable. Results of this analysis indicated differences in satisfaction and importance for schools based on achievement level. She then computed discrepancy scores by subtracting satisfaction scores from importance scores. Results indicated that the teachers expressed a
greater importance for the aspects of their jobs than satisfaction with the aspects of their jobs. Analysis of the interview data revealed an overall disappointment in the parent-teacher relations in the schools. These results indicated the desire for change.

Stempień and Loeb (2002) assessed the differences in job satisfaction between general education teachers and special education teachers and determined the sources of job satisfaction. The participants in the study were a convenience sample of full-time certified teachers ($N = 116$) in the suburban Detroit area. The researchers operationalized the independent variable through classification of the teachers into groups based on the teachers' self-report on the demographic portion of the survey. The participants' categories were: (a) teachers whose students were exclusively in general education programs, (b) teachers of students with emotional/behavioral impairments from general education or special education schools, and (c) teachers of both general education students and students with emotional/behavioral impairment taught in special education classrooms in general education schools.

The dependent variable was participant rating of job satisfaction and life satisfaction. The researchers
analyzed job satisfaction and life satisfaction separately. Two separate composite scores resulted for each group. The Brayfield-Rothe Job Satisfaction Index measured job satisfaction. The Life Satisfaction Index-A (Neugarten, Havighurst, and Tobin, 1961) measured life satisfaction. Both used a 5-point Likert-type scale with responses ranging from 1 (strongly agree) to 5 (strongly disagree). The authors added five additional items to assess to satisfaction/dissatisfaction specifically related to teaching, and two open-ended questions ("What would you like to change about your job?" and "What do you like about your job?"). The researcher used analysis of variance (ANOVA) as the primary method of analysis for this survey study.

The results of the ANOVA revealed significant differences between the groups. The effect size was moderate ($\eta^2 = .08$). A post hoc Scheffé test revealed that teachers of students in general education reported higher job satisfaction than teachers of students with disabilities. Study findings indicate that unlike previous research, the special education teachers had significantly lower job satisfaction than general education teachers. They also determined frustration with teaching to be a
significant factor in the dissatisfaction in special education teachers.

Liu and Meyer (2005) examined teacher perceptions of their jobs and teacher turnover through an analysis of data from the National Center for Education Statistics Schools and Staffing Survey and Teacher Follow-Up Survey. The purpose of the study was to determine how satisfied teachers were with aspects of their jobs and how perceptions differ among different groups of teachers. Leavers, stayers, and movers, were among the groups examined. The sample included teachers from public and private schools (N = 6,279). The researchers used a hierarchical linear model to examine the data at two levels, within teacher and between teachers. Important findings indicated low compensation to be the leading reason for dissatisfaction. The second leading reason for dissatisfaction was student discipline problems. Teachers who left had a slightly more negative perception of student behaviors than those who stayed.

The studies on teacher characteristics showed that teachers differ in satisfaction based on their age and gender (Rudd & Wiseman, 1962; Hollon & Gemmill, 1976; Galloway et al., 1985; Lowther et al., 1985; Avi-Itzhak, 1988; and Borg et al., 1991). Teachers also express varying
levels of satisfaction based on their level of participation in the decision making process and the organizational structure of the school. Teachers who are more involved and in less hierarchical schools report higher satisfaction (Carpenter, 1971; Grassie & Carss, 1972; Belasco & Alutto, 1972; Hollon & Gemmill, 1976; Hoy & Sousa, 1984; and Taylor & Bogotch, 1994).

A great number of predictors of job satisfaction surfaced from the studies in this section. Significant predictors related to the teacher were interdependence, expectancy motivation, perceptions of students' needs, and experience levels (Bridges, 1980; Miskel et al., 1980; Lobosco & Newman, 1992; and Pearson, 1995). Congruence, role ambiguity, organizational climate relative to the task, and rewards were significant predictors related to the organization (Wiggins et al., 1983; Neumann et al., 1988; and Conley & Levinson, 1993). Job satisfaction also surfaced as a predictor of perceived goal attainment, work related factors, and autonomy (Knoop, 1981 & Pearson, 1995). Additionally, autonomy had a direct effect on satisfaction (Archibald & Porter, 1994; Lam et al., 1995; and Verdugo et al., 1997). Teachers also expressed varying levels of satisfaction based on the students they taught. The differences surfaced for students of varying
achievement levels and behavior problems (Shann, 1998; Stempien & Loeb, 2002; and Liu & Meyer, 2005).

The next section of the educational studies focuses on administrator job satisfaction. The studies include samples of principals, assistant principals, head teachers, and deputy head teachers. Many of the factors explored in teacher job satisfaction appear in administrator job satisfaction studies as well.

Administrator Job Satisfaction

Schmidt (1976) tested Herzberg's (1959) Motivation-Hygiene Theory with public school administrators using qualitative data collection and mixed method analysis. Herzberg's theory posits that motivating factors focus on the work itself and hygiene factors focus on the work conditions. Schmidt sought to determine the relationship between job satisfaction and motivation-hygiene factors. He asserted that knowledge gained from his study would strengthen job satisfaction research. The participants were randomly selected secondary public school administrators (N = 74) from suburban Chicago. The researcher used a combination of interview and written response to determine (a) what types of events caused job satisfaction and job dissatisfaction for secondary school administrators, (b) how long the job satisfaction and dissatisfaction lasted,
and (c) what kinds of consequences occurred as a result of these events.

The interview consisted of asking the administrator to share an event that resulted in exceptionally good or bad feelings about the job as an administrator. Content analysis provided a coding technique resulting in data for a chi-square analysis. The researcher obtained sufficient intercoder reliability ($r = .64$ to $r = .92$). A significant chi-square supported the researcher’s hypothesized relationship between positive events and motivation factors and between negative events and hygiene factors ($X^2 = 92.66, p < .01$).

The significant findings indicated that recognition, achievement, and advancement served as motivators for administrators. Interpersonal relations with subordinates, peers, and superiors contributed most to job dissatisfaction. Additionally, fulfilling the motivation factors tended to make an administrator stay in the position and lack of relief from the hygiene factors tended to make an administrator leave.

Poppenhagen, Mingus, and Rogus (1980) examined the differences in the attitudes of elementary, junior high, and senior high school principals. The field survey study focused on differences in terms of the principals’
perceived competency, involvement in decision-making, autonomy, job satisfaction, and time spent on work-related tasks. The researchers randomly selected principals ($N = 287$) from throughout the state of Ohio. The questionnaires contained items that measured each variable of interest. Twenty-two items measured job satisfaction. Responses ranged from 1 (Satisfied) to 3 (Dissatisfied). Job facets measured included salary, benefits, work, influence, relationships with faculty and students, leisure time and time with family, supervisor, recognition of personal achievements, and overall job satisfaction.

The researchers used the BMDP P1F Statistical Program (Dixon & Brown, 1977) to analyze the data. Results indicated that all of the principals were generally satisfied. Differences by levels only surfaced in suburban districts. The urban and suburban districts differed in satisfaction with leisure time and time with family, and relationships with students. The observed differences were mostly in terms of type of district (urban, suburban) rather than by level (elementary, junior high, senior high).

Johnston, Yeakey, and Winter (1981) studied the relationship between the job satisfaction of principals and their perceived level of teacher militancy. They
specifically sought to determine if there were significant differences in the level of job satisfaction, esteem, autonomy, self-actualization, and preference of professional representation between principals who perceived high teacher militancy and those who perceived low teacher militancy. The researchers tested differences in job satisfaction based on type of school (urban, rural, or suburban) and school level (elementary, middle, or high). They also assessed differences between levels of perceived teacher militancy among principals from rural, urban, and suburban communities.

The participants consisted of a random sample of principals ($N = 45$) from three counties located in the northeastern United States. The sample was stratified based on community type and school level. The participants responded to a questionnaire containing the Minnesota Satisfaction Questionnaire (MSQ; Weis, Davis, England, & Lofquist, 1967) which measured job satisfaction, a modified version of the Attitude Militancy Scale (Wohnsiedler, 1975) which measured perceived teacher militancy, and items that collected personal data. The mean responses to the teacher militancy items created a dichotomy of the principals into high and low perceived teacher militancy groups. These groups served as the independent variable in several
analyses of variance procedures testing for significant differences between the groups. The dependent variables in the analyses were job satisfaction, esteem, autonomy, and self-actualization. Additional analysis of variance procedures tested for differences between community types and school levels. Chi-square analysis tested for the relationship between principal's preference for representation and perceived teacher militancy.

Results of the analyses revealed no significant differences in job satisfaction between community types or school levels. Neither were there differences between the perceived militancy groups in esteem, autonomy, self-actualization, or preference for representation. The researchers did find that the level of perceived militancy was significantly different by community type ($F = 4.52, p < .05$). Overall findings suggested that teacher militancy had little impact on principal job satisfaction.

Bacharach and Mitchell (1983) examined the sources of dissatisfaction among superintendents and principals. They expanded on previous research by focusing on administrators and hypothesizing a relationship between performance and job satisfaction. Specifically, the researchers proposed that performance preceded satisfaction and factors that enhanced task completion were sources of satisfaction. The
study participants were a stratified random sample of principals ($N = 95$) and superintendents ($N = 46$) from four regions in New York. The dependent variables examined were job dissatisfaction, dissatisfaction with agents and dissatisfaction with pay. Participants responded to a series of statements related to the job that began with, "In general, how satisfied are you with...?" Participants rated the items on a scale from 1 (very satisfied) to 4 (very dissatisfied). The researchers included a total of 28 independent variables to test each of the research hypotheses.

The independent variables used to test the first hypothesis dealt with bureaucratization and included routinization, autonomy, rule observance, record use, role ambiguity, and role conflict. The researchers used negative supervision, positive supervision, supervisor's view of value and accuracy of supervisor's view in the hypothesis dealing with supervision. Authority, influence, decisional deprivation, and decisional saturation made up the independent variables used to test the hypothesis dealing with decision-making power. The hypothesis related to district environment included district enrollment, percentage of families below the poverty level, high diversity, stability, high need information, low
predictability as independent variables. Number of supervised, number of committees, high cooperation, high frequency demands, and unfavorable union attitude toward administration were the independent variables included in the test of the hypothesis dealing with work demands. Age, years in position, and years in district were the independent variables used to test the hypothesis dealing with individual attributes.

The researchers ran separate multiple regression analyses to test each hypothesis and each group. An additional set of analyses determined the significant predictors of dissatisfaction regardless of the hypothesis related variables. The results revealed role conflict, negative supervisor behavior, and percentage of families below the poverty level as consistent negative predictors of dissatisfaction for principals and superintendents.

Friesen, Holdaway, and Rice (1983) examined principal perception of the sources of satisfaction and the extent to which they matched Herzberg's two-factor theory. The participants were a stratified random sample of Alberta school principals ($N = 327$). Participants responded to the following two open-response questions pertaining to their satisfaction and dissatisfaction with the job of principal: (a) Which two factors contribute most to your overall
satisfaction with the principalship? (b) Which two factors contribute the most to your overall dissatisfaction with the principalship? The researchers used content analysis to identify themes from the responses. They identified 15 categories related to satisfaction and 16 categories related to dissatisfaction. The analysis took place over two months and resulted in an intracoder reliability of 94.8% and an intercoder reliability of 92%.

An examination of the differences by personal characteristics revealed that male principals, principals with 20 or more years of experience, and principals in city schools identified hygiene factors as dissatisfiers more frequently than motivation factors. The results generally aligned with Herzberg's theory in that achievement responsibility, and recognition were sources of overall satisfaction and policy, administration, and working conditions were sources of overall dissatisfaction.

Young and Davis (1983) tested 10 hypotheses based on five versions of Herzberg's (1959) Motivation-Hygiene Theory. Their study was an attempt to resolve conflict in the literature surrounding the interpretation of Herzberg's theory. The participants were randomly selected public school superintendents (N = 72) listed in the Regional Edition of the Curriculum Information Center School
Director (CIC, 1979). The participants responded to an instrument made up of a semantic differential. They reacted to Herzberg's first level motivators and hygienes found in educational research on a bipolar scale. The instrument underwent initial pilot testing, factor analysis, and convergent validity. Superintendents indicated which items contributed to their satisfaction and dissatisfaction with the job.

Results did not support any of the hypotheses posed by the researchers. Ultimately, they found that the motivator and hygiene factors both contributed to job satisfaction and job dissatisfaction. The researchers concluded that the study casts doubt on Herzberg's two-factor theory.

Gunn and Holdaway (1986) examined the relationship between principals' job satisfaction and their perception of their influence, their effectiveness, and their school's effectiveness. They used a mixed method, correlation design to determine the best predictors of overall job satisfaction. The participants were senior high school principals (N = 133) in the providence of Alberta. The participants responded to a questionnaire containing items that collected personal and organizational data and measured job satisfaction, school effectiveness, leader effectiveness, and level of influence.
The job satisfaction items, derived from Rice's (1978) questionnaire, contained 35 facets of job satisfaction and one item measuring overall job satisfaction. The researchers developed the other instruments based on the literature. Each instrument contained one item that measured the overall value of the variable, which operationalized the dependent variable in each multiple regression analysis. The researchers also included open-ended items in the questionnaire. Ten randomly selected principals additionally participated in semi-structured interviews intended to expand upon the data collected from the questionnaire.

Gunn and Holdaway analyzed the questionnaire data for differences in personal and organization characteristics. Overall satisfaction was associated with school location, pure senior high school, school size, age of the principal, and experience of the principal. A Pearson correlation revealed moderate relationships among the overall variables. All coefficients were greater than or equal to .40, except for the relationship between level of influence and job satisfaction (r = .32). The researchers also used a stepwise multiple regression to determine the best predictors of each overall variable. Three predictors of overall job satisfaction accounted for 62% if its variance.
Three predictors of school effectiveness accounted for 48% of its variance. Three predictors of overall leader effectiveness accounted for 49% of its variance. Two predictors accounted for 33% of the variance in level of influence.

The data from the interviews revealed that principals gained the most satisfaction from students and teacher satisfaction. They were dissatisfied with influences outside the school and unhappy, unprofessional, and uncooperative teachers. The principals related a sense of accomplishment from seeing satisfaction among teachers and student outcomes.

Johnson and Holdaway (1991) examined the perceptions of principal effectiveness, school effectiveness, and job satisfaction. They used previous research to conceptualize a relationship among the perceptions. The primary study participants were elementary school principals ($N = 112$). The researchers used data from teachers ($N = 262$) and superintendents ($N = 9$) to achieve triangulation and validation of responses obtained from the principals. The principals responded to a questionnaire by rating their overall job satisfaction and satisfaction on various facets of the job using a scale ranging from 1 (highly dissatisfied) to 6 (highly satisfied). They also rated the
importance of each job facet using a scale from 1 (not important) to 4 (extremely important). The principals rated the effectiveness of their school by rating 38 organizational and educational criteria using a scale ranging from 1 (highly ineffective) to 6 (highly effective) and the importance of the criteria using a scale ranging from 1 (not important) to 4 (extremely important). Principals rated their perceptions of their effectiveness in the same manner.

Teachers responded to the same school effectiveness items and principal overall effectiveness. Superintendents responded to items related to school and principal effectiveness. The researchers also interviewed 10 principals with similar characteristics as the respondents. Pearson correlations and stepwise multiple regression analysis identified the best correlates and predictors of the overall variables. The researchers used content analysis of the interview data to enrich the quantitative data.

The results indicated a strong relationship between overall effectiveness of schools and principals ($r = .65$, $p < .01$). The relationship between overall job satisfaction and the overall school and principal effectiveness were weaker ($r = .27$ and $r = .31$, $p < .01$). The results of the
stepwise multiple regression revealed the best predictors of the overall variables. For overall job satisfaction, the effect of the job on the personal life of the principal contributed 30.9% of the variance. Maintaining an appropriate climate contributed 31.6% of the variance in school effectiveness. Making timely, appropriate, and acceptable decisions contributed 24.6% of the variance in principal effectiveness.

Borg and Riding (1993) investigated the occupational stress and job satisfaction of school administrators. Specifically, they sought to determine the degree of stress and job satisfaction of school administrators and the sources of stress in their work. The sample consisted of primary and secondary school administrators (N = 150) in Malta and Gozo. The administrators were head teachers and deputy head teachers in all of the state schools of the island nation. Participants responded to questionnaires designed specifically for each administrative position. The questionnaire contained four sections: (a) demographic items, (b) a 22-item stress inventory, (c) overall stress items, and (d) job satisfaction items. The researchers sought the input from experienced professionals in creating the questionnaire. The researchers categorized the demographic data and used analysis of variance to determine
the differences in stress for the various demographic groups.

One analysis of variance applied job stress as the dependent variable and the demographic variables as the independent variables. The results revealed main effects for the type of administrative position \((F(1,146) = 3.89, p < .01)\) and the length of experience \((F(1,146) = 10.27, p < .01)\). Head teachers and more experienced administrators reported greater stress. In another analysis of variance, job satisfaction was the dependent variable and the demographic groups were independent variables. The results revealed one significant interaction effect between the type of position and job satisfaction. The least experienced deputy head teachers were more satisfied than were the head teachers. The results also showed a dramatic decrease in job satisfaction for the deputy heads over time.

The researchers used a principal components factor analysis to determine underlying constructs among the sources of stress for the administrators. They used a factor loading criteria of .40 and extracted four factors; (a) lack of support and resolving conflict, (b) inadequate resources, (c) workload, and (d) work conditions and responsibilities. A subsequent repeated measures analysis
of variance revealed differences in how the administrators perceived the stressfulness of the four factors. Male secondary school administrators reported greater stress due to lack of resources and work conditions and responsibilities. A Pearson correlation revealed a significant, negative relationship between perceived administrative stress and job satisfaction ($r = -.24, p < .01$).

Knoop (1995) examined the relationships among participative decision-making, overall job satisfaction, facets of job satisfaction and commitment. They sought to build support for the decision making satisfaction relationship examined in previous research. The sample consisted of principals and assistant principals ($N = 163$) in elementary and secondary schools in southern Ontario. The participants responded to surveys distributed by graduate students. The survey contained a short form of the JDI (Hatfield, Robinson, & Huseman, 1985), a single item that measured overall job satisfaction, the Organizational Commitment Questionnaire (OCQ; Mowday, Steers, & Porter, 1979), and Siegel and Ruh’s (1973) scale measured participative decision-making.

The researcher used Pearson correlation to analyze the hypothesized relationships. Study findings indicated
positive relationships between participative decision-making and commitment ($r = .38$), overall satisfaction ($r = .35$), and the five dimensions of job satisfaction (satisfaction with work ($r = .39$), pay ($r = .47$), promotions ($r = .47$), supervision ($r = .42$), and co-workers ($r = .25$)]. There were also significant correlations between commitment and all of the satisfaction variables.

Wong, Cheuk, and Rosen (2000) conducted a correlation study to examine the job stress, supervisor support, and job satisfaction of kindergarten principals. Specifically, they investigated three main objectives: (a) to determine if occupational stress was associated with negative affect and job satisfaction, (b) to determine the degree to which emotional and informational supervisor support could reduce negative effects of stress, and (c) to document the negative effects resulting from supervisor support. The participants were kindergarten principals ($N = 108$) from Hong Kong who responded to a survey.

The survey measured job stress using a 17-item scale adapted from the Administrative Stress Index (Swent & Gmelch, 1977) which identified sources of stress in 35 job situations. The researchers measured negative affects of anger, worry, unhappiness, strain, disappointment, and helplessness using an 11-point scale adapted from the
Organizational Stress Questionnaire (Van Dijkhuizen, 1984). This measured the respondents' tendency to experience negative emotions. One 11-point scaled item ranging from -5 (extremely dissatisfied) to 5 (extremely satisfied) measured job satisfaction. Respondents indicated the extent to which they were generally satisfied or dissatisfied with their work.

An analysis of mean stress, affect, and job satisfaction scores indicated that principals perceived moderate stress and satisfaction with their work and, experienced only mild negative affect. A subsequent correlation analysis showed a positive relationship between stress and negative affect ($r = .58, p < .0001$) and a negative relationship between stress and job satisfaction ($r = -.31, p < .004$).

The investigations into administrator job satisfaction provided advancements in the literature. Administrators were from various top levels in education (head teachers, deputy head teachers, principals, and superintendents). These studies explored the application of Herzberg's theory to the administrative members of the organization (Schmidt, 1976; Friesen, Holdaway, & Rice, 1983; and Young & Davis, 1983) and illuminated various correlates and predictors of job satisfaction (Johnson & Holdaway, 1991; Knoop, 1995;
and Wong, Cheuk, & Rosen, 2000). Studies investigating differences in job satisfaction based on location and size of the school organization revealed mixed results (Poppenhagen, Mingus, & Rogus, 1980; and Johnston, Yeakey, & Winter, 1981). The administrator studies also explored the relationships between job stress, effectiveness, and job satisfaction (Borg & Riding, 1993; and Wong, Cheuk, & Rosen, 2000).

The significant findings from the literature on job satisfaction studies in education provide promising leads for possible future research. This review of studies represents a variety of methodologies, variables, and instruments employed to assess teacher and administrator job satisfaction. The studies reflect the influence of the private sector literature on job satisfaction. The variety in instruments used to measure job satisfaction reflects a focus on certain variables. Research showed a strong reliance on instruments with well-documented psychometric properties. The next section of this chapter will explore various job satisfaction measurement instruments.

Job Satisfaction Instruments

Over the years, researchers have used a variety of instruments to measure job satisfaction. This section examines several of the most widely used instruments for
measuring job satisfaction. They represent the works of the pioneers in the field of job satisfaction in the private sector.

Index of Job Satisfaction

Brayfield and Roth (1951) developed a measure of job satisfaction based on the assumption that "job satisfaction could be inferred from an individual's attitude toward work" (p. 307). They developed an attitude scale that allowed quantification of the expression of an individual's feelings about his work. The researchers set the following requirements in the development of the scale: (a) it should give an overall index of job satisfaction, (b) it should be applicable to a variety of jobs, (c) it should be sensitive to variations in attitude, (d) the items should reasonable enough to elicit cooperation from both employees and management, (e) it should be reliable, (f) it should be valid, and (g) it should be brief and easy to score.

Brayfield and Roth started with Thurstone's (1929) method of scaling the items for the instrument. A pilot group completed the instrument and the resulting data yielded a relatively low reliability coefficient. The researchers switched to the Likert (1934) method of scaling. The 18-item questionnaire required respondents to rate statements from strongly agree to strongly disagree.
They administered the new scale to a different pilot group and the data yielded a higher, satisfactory reliability coefficient. The researchers subsequently administered the final questionnaire to a sample of female office employees (N = 231). The data yielded an even higher reliability coefficient.

Brayfield and Rothe used two techniques to obtain validity for the instrument. The first technique was to use an outside criterion. They obtained this criterion by administering the instrument to a group of night school Personnel Psychology students (N = 91). Some of the students worked within their area of study and some did not. The researchers hypothesized that those working within their area of study would have higher job satisfaction than would those who did not work within their area of study. The data from this administration of the instrument confirmed they researchers' hypothesis.

The second technique used to obtain validity was comparison with an existing instrument. At the time of the study, the Hoppock (1935) instrument was available. The night school students also completed the Hoppock instrument. The data yielded similar results when they compared the two student groups. Brayfield and Rothe
concluded that their instrument was sufficiently valid for future use.

**Minnesota Satisfaction Questionnaire**

Weiss, Dawis, England, and Lofquist (1967) developed a criterion measure of satisfaction through their research on persons with disabilities. The Minnesota Satisfaction Questionnaire (MSQ) contains 100 items and 20 scales that measure satisfaction and numerous other work related dimensions. It measures satisfaction with different aspects of the work environment. The MSQ was originally developed on a group of employees ($N = 1,793$) ranging from unskilled, blue-collar to managerial which served as the norm-reference group for the instrument. Respondents were instructed to rate their satisfaction with a "reinforcer" in the work environment. Responses range from 1 (very dissatisfied) to 5 (very satisfied). The long-form of the MSQ contains five items in blocks of 20 corresponding to the 20 scales. The short-form contains 20 items that measure three scales: (a) intrinsic, (b) extrinsic, and (c) general satisfaction. Interpretation requires converting raw scores to percentile scores and comparing percentile scores to the norm group that is most representative of the respondent. The norm groups include professional, technical, managerial, clerical, sales, service, laborers,
employed disabled, and employed non-disabled workers. In general, percentile score of 75 or higher represent high levels of satisfaction; percentile scores of 25 or lower represent low levels of satisfaction.

In terms of internal consistency, 83% of the coefficients were .80 or higher and just over 2% were lower than .70. Canonical correlation analysis yielded test-retest coefficients of .97 after one week and .89 after one year. The authors obtained construct validity based on the Theory of Work Adjustment through convergent assessment with the Minnesota Importance Questionnaire. They additionally conducted a principal components factor analysis with varimax rotation which resulted in a two-factor solution for eight occupational groups.

**Job Descriptive Index**

Smith, Kendal, and Hulin (1969) developed the Job Descriptive Index (JDI) after an extensive review of the literature on the various ways in which researchers measured job satisfaction. They defined job satisfaction as, "the feelings a worker has about his job" (p. 6). The researchers specifically hypothesized that the feelings resulted from a perceived difference in what was expected and what actually occurred. Their goal was to create an instrument that made use of a series of scales measuring
evaluative, general, long-term aspects and descriptive, specific, short-term aspects of the job.

The instrument measures the worker's satisfaction with five dimensions of a job: (a) the work itself, (b) pay, (c) promotion, (d) supervision, and (e) co-workers. Respondents are instructed to indicate whether a word or phrase applied to their job with a Y (for Yes), ? (for undecided), or N (for No). Yes responses to negative items and no responses to positive items receive a score of 0. Undecided responses received a score of 1. Yes responses to positive items and no responses to negative items received a score of 3. Individual scores are interpreted based on a normative group (either the norms identified by the authors or the group to which the individual belongs).

Smith et al. established validity and reliability through tests of internal consistency and factor analysis with various samples. Golembiewski and Yeager (1978) substantiated the applicability of the JDI for various demographic groups. The instrument has respectable psychometric properties (Leong & Vaux, 2003) and is one of the most widely used measures of job satisfaction (Yeager, 1981).

Yeager (1981) examined the dimensionality of the JDI and explored the value of a larger number of factors than
were identified by the original authors. Yeager expected differences in the results of his study based on differences in the characteristics of the sample and the size of his sample. The researcher pointed out limitations due to a small sample size in Smith et al.'s previous work. Yeager used a case to variable ratio higher than 30 to 1.

The participants were employees (N = 2,261) of a soft goods company in the United States, ranging from the executive to the janitorial level. The participants responded to the same items from the JDI using Y, ?, and N. Yeager coded the responses and subjected the data to a principal components factor analysis with varimax rotation. He used the scree test to determine the number of factors to retain and the .40 criterion for factor loadings. Rotation resulted in nine factors: (a) ability of the supervisor to do his/her job, (b) co-workers' interpersonal relations, (c) challenging work, (d) promotion opportunities, (e) pay, (f) frustration with work, (g) ability of co-workers to do their jobs, (h) interpersonal relations with the supervisor, and (i) fulfillment in work. Some of the items loaded similarly to previous studies. Yeager concluded that the JDI contained more than five dimensions, but cautioned that more research would substantiate the usefulness of the additional dimensions.
Job Diagnostic Survey

Hackman and Oldham (1975) developed the Job Diagnostic Survey (JDS) in response to a trend to redesign jobs. They attempted to address the limited capability to measure and understand what happened when jobs changed. They intended the instrument to be administered prior to a job's redesign and in the research and evaluation phase to assess the effects of the redesign. The development process took place over two years during which they revised based on psychometric and substantive considerations.

The previous work of Turner and Lawrence (1965) and Hackman and Lawler (1971) formed the theoretical basis of the JDS. The theory specifies that personal and work outcomes (high internal motivation, high work satisfaction, high quality performance, and low absenteeism and turnover) result when employees experience three critical psychological states (meaningfulness of work, responsibility for the outcomes, and knowledge of the results of work activities). Five core dimensions (skill variety, task identity, task significance, autonomy, and feedback) create the critical psychological states. Skill variety, task identity, and task significance enhance experienced meaningfulness of work. If a job has high
autonomy, experienced responsibility is increased. If a job has feedback, knowledge of results is increased.

Hackman and Oldham collected data on site at each of seven organizations located in the East, Southeast, and Midwest. The participants (N = 658) were employees working in 62 different jobs including blue collar, white collar, and professional workers. The researchers administered the JDS to groups of employees. They collected additional information on the characteristics of the jobs from supervisors and researchers using a form nearly identical to the JDS. Supervisors also provided ratings of work effectiveness using a 7-point scale for effort, work quantity, and work quality.

The researchers reported internal consistency reliability coefficients for each scale ranging from .56 to .88. Median of inter-item correlations, an indication of discriminant validity, ranged from .12 to .28. The correlations between ratings of the employees, the supervisors, and the researchers provided an indirect test off the objectivity of employee ratings of the job characteristics. The median correlations were all positive and ranged from .46 to .63. They reported a moderate convergence of the ratings, but pointed out that many of the correlations were lower than were those previously
reported by Hackman and Lawler (1971). Hackman and Oldham conclude the JDS to be useful in (a) determining if organizational or behavioral problems are rooted in the relationships of employees to their work, (b) determining the degree to which realistic improvement of a job is attainable, and (c) determining the employee readiness to change. They cautioned that the instrument was not a selection or placement tool and that there should be a high level of trust between the individuals completing the instrument and those using the results to ensure its usefulness.

Job in General Scale

Ironson, Smith, Brannick, Gibson, and Paul (1989) developed the Job in General (JIG) scale to accompany the Job Descriptive Index (JDI). The JIG is a global scale that measures job satisfaction and assess a respondent’s overall feeling about the job. The researchers contended that a global scale provides the respondent an opportunity to evaluate the total situation factoring in different facets that may or may not be important in their consideration. They argue that combining facet scores to create a composite score does not always allow the same consideration.
The researchers constructed the scale with evaluative adjectives and short phrases that summarized feelings about the job. They avoided items that referred to specific aspects of the job. They included items that were global with a long-term frame of reference. During initial construction, 42 items underwent analysis with two different samples. The resulting instrument contained 18 global evaluative items. When subjected to a principal components factor analysis, the 18 items loaded on one factor accounting for 87% of the variance. Internal consistency analysis of the 18-item instrument with two sample groups resulted in coefficient alphas ranging from .91 to .95. The researchers also determined the discriminant validity of the instrument through comparison with the general scales on the JDI. They also used correlation analysis of the work scale of the JDI with the JIG and determined work to be the most important facet in overall job satisfaction with the samples in their studies.

The instruments described in this section represent the most widely used in the job satisfaction literature. Instruments developed since their creation, are based on their theoretical and psychometric strengths. Their use with a wide variety of groups adds to their accessibility and strengthens the design of studies that employ them. The
Research Designs for Job Satisfaction

The studies included in this review represent various research designs in their exploration of job satisfaction. The researchers compared the job satisfaction of groups of individuals and explored the relationships between job satisfaction and personal and or work related variables. Researchers used various analysis methods, but the overall design has primarily been observational. In observational designs, the researchers observe rather than manipulate the variables (Shadish, Cook, & Campbell, 2002). The correlation design is within the observational study category.

The correlation design allows for an examination of relationships between variables. The ordinary-least-squares (OLS) multiple regression, a statistical method that determines a regression equation that represents the relationship among variables (Vogt, 2005) is frequently noted in the job satisfaction literature. The typical dependent variable was a global measure of participant satisfaction with the job. The independent variables were personal characteristics (used as control variables) and job facets. Job facets included, but were not limited to current-page
salary, recognition, autonomy, and possibility of
promotion. Job facets were typically the predictors of job
satisfaction. The OLS multiple regression results in the
expression of a linear combination of significant
independent variables that explain variance in the
dependent variable.

Chapter Summary

The private sector job satisfaction studies focused on
job satisfaction and turnover, job satisfaction in various
demographic groups, and the impact of various moderating
variables on job satisfaction. The studies about job
satisfaction and turnover provided evidence of the
effectiveness of implementing employee reduction programs
based on changes in job satisfaction. Additionally, the
turnover studies provided insight as to appropriate
conceptualization of turnover for future research.
Differences in the job satisfaction of various demographic
groups provided information as to the applicability of
various measurement instruments. The studies of moderating
variables provided important information about the
examination of variables related to the work and the
worker.

The educational job satisfaction studies examined the
job satisfaction of teachers and administrators using
instruments and designs rooted in the private sector research. The education studies also provided a basis for appropriate use of various instruments derived from the private sector studies. Although researchers used various designs, the most prevalent design is the correlation design.

The dynamic nature of society requires continuous examination of phenomena within the context of change. The next chapter will outline the research design for a study about job satisfaction in education that attempts to add to the body of literature reviewed above.
CHAPTER III

METHODOLOGY

The researcher investigated factors that influenced the job satisfaction of new teachers in the Jefferson County Public Schools (JCPS). New teachers assume their first teaching positions with JCPS and had three years service or less. This topic is important because of the teacher turnover problem that exists nationally, especially for new teachers. With the exception of a few studies that include teachers with varying levels of experience, job satisfaction research involving new teachers has been largely ignored. This study aimed to address this gap in the literature.

Research Design

This study was a field survey that collected data from new public school teachers in a large urban school district in Kentucky. The study had a correlation design (Campbell & Stanley, 1963) with correlation analysis and hierarchical multiple regression analysis (Cohen & Cohen, 1983) serving as the primary analytical techniques. As noted in Chapter II, the correlation design is most commonly used by job
satisfaction researchers and has rendered consistent results with substantial practical significance.

Locke’s definition of job satisfaction, served as a basis for the selection of the independent and dependent variables. A complete description of the independent variables, the dependent variables, and the variable measurements appears later in this chapter.

Theoretical Framework

The Hulin, Roznowski, and Hachiya (1985) conceptual model framed this study by providing the basis for the independent variables and their relationships with other variables (see Figure 1). Hulin et al. cast job satisfaction as both a significant criterion variable (i.e., dependent variable) influenced by work factors, and as an important predictor variable influencing work outcomes such as employee turnover. This study addressed job satisfaction as a dependent variable influenced by two important categories of potential predictor variables: work role inputs and work role outcomes. Work role inputs represent the personal characteristics the employee brings into the work setting, such as skills to do the job and the effort expended to perform the job. Work role outcomes represent facets of the job itself, such as salary, fringe benefits and working conditions.

Figure 1. Hulin, Roznowski, and Hachiya (1985) Job Satisfaction Model
This study addressed the above conceptual framework by casting the personal characteristics of new teachers as control variables, and measures of both general job facets and teacher-specific job facets as predictors of interest in a multiple regression analysis. A global measure of teacher job satisfaction served as the dependent variable.

Research Advancements

This study served to advance job satisfaction research in an area where little empirical research exists. This is one of few teacher job satisfaction studies that focused on new teachers. This study is also particularly unique in that it took place in a large urban school district. This research attempted to narrow the focus on job satisfaction to one of the teacher groups most likely to turnover, teachers in an urban setting and with less than three years service (Ingersoll, 2001; Ingersoll & Smith, 2003).

Participants and Sampling Procedures

The study participants were 1,273 certified public school teachers employed by the Jefferson County Public Schools (JCPS) for three years or less. The JCPS office of Accountability, Research, and Planning provided a data file that facilitated the selection of new teachers.
The researcher chose new teachers from all JCPS schools. A district-wide questionnaire about teacher satisfaction, administered by mail according to the survey procedures developed by Dillman (2000), yielded the final sample. Use of Dillman’s method resulted in a 50% response rate.

Independent Variables

This study addressed the impact of new teacher personal characteristics (e.g., age, ethnicity, gender, highest educational level earned), cast as control variables, and the impact of both general job facets (e.g., salary, benefits) and teacher-specific job facets (e.g., planning and preparing lessons, curriculum development, communicating with parents). The job facet variables served as the predictor variables of interest in the analysis. The measure of the job facet items was a 5-point Likert-type scale (1 = not at all satisfied, 5 = extremely satisfied). Many of the general job facets and the teacher-specific job facets were additive composite scales derived from a principal components analysis (Tabachnick & Fidell, 1996) conducted after actual data collection to construct-validate the instrument and reduce the survey rating items to a more manageable number of predictor variables (Stevens, 1992).
The study participants provided personal information on a biographical data section of the survey questionnaire (see Appendix A) to operationalize the independent variables representing teacher characteristics including (a) age, (b) gender, (c) marital status, (d) number of dependent children, (e) ethnicity, (f) highest level of education achieved, (g) years of teaching experience, (h) current school assignment (elementary, middle school, high school), and (i) school CATS classification.

Dependent Variable

The dependent variable was a global measure of overall teacher job satisfaction produced by an additive composite score of participant rating (Brayfield & Rothe, 1951; Ironson, Smith, Brannick, Gibson, & Paul, 1989) of items on a 5-point Likert-type scale. The scale indicated the degree of participant overall satisfaction with the job of classroom teacher (1 = not at all satisfied, 5 = extremely satisfied). An example of an item measuring overall job satisfaction was: "The degree to which I am satisfied overall with my job as classroom teacher."
Instrument

The survey instrument (see Appendix A) was designed to learn how new teachers in Jefferson County Public Schools perceived various aspects of their work. The participants completed demographic items (e.g., age, gender, marital status) and work experience items (e.g., years of experience as a teacher, type of school assignment [elementary, middle school, high school]). The participants also rated their current level of job satisfaction for each of 61 job facet items addressing both general and teacher-specific job facets.

The survey instrument derived from an extensive review of prior job satisfaction instruments (Brayfield & Rothe, 1951; Weiss, Dawis, England, & Lofquist, 1967; Hackman & Oldham, 1975; Yeager, 1989; Ironson, Smith, Brannick, Gibson, & Paul, 1989). The instrument included measures of general job facets (e.g., "The variety of tasks in my job", "The degree to which I receive recognition for the work I perform", "The hours I work per week") deemed important by most researchers knowledgeable about the job satisfaction construct (Cranny, Smith, & Stone, 1992). The researcher developed wording for teacher-specific job facet measures based on current new teacher standards (Kentucky Education Professional Standards Board, 1999) and widely held
occupational expectations for teachers (e.g., "The amount of time I have to plan and prepare lessons," "The extent to which I am prepared to teach students of varying achievement levels," "The teaching materials available to me"). The rating items also included global measures of overall teacher job satisfaction (e.g., "My satisfaction with my role as classroom teacher as the job is currently defined," "The degree to which I am satisfied overall with my job as classroom teacher").

The survey instrument Likert-type scales derived from satisfaction scales that proved reliable in previous studies (Aiken, 1996). The instrument, instrument preamble, and research protocols met human subjects protection requirements and received human subjects approval from the Institutional Review Board (IRB) at the University of Louisville prior to data collection.

Following collection of study data, the researcher conducted principal components analysis to assess construct validity of the instrument and to reduce the data to a more manageable number of predictor variables. The predictor variables then became independent variables in a subsequent hierarchical multiple regression analysis.
Data Collection

The Jefferson County Public Schools office of Accountability, Research and Planning provided the researcher with the names and work addresses of all potential study participants. The investigator used data collection procedures recommended by Dillman (2000). The researcher obtained permission for data collection from the JCPS before distributing survey packets. The research protocols consisted of a packet including: (a) a pre-notice letter (See Appendix C) informing the potential participants they were about to receive a survey and an invitation to participate in research; (b) a brief cover letter (see Appendix D) and an initial mailing of the survey questionnaire (see Appendix A); (c) a brief reminder letter (see Appendix E) designed to stimulate greater response to the initial mailing of the instrument; (d) a brief cover letter (see Appendix F) and a second copy of the instrument (see Appendix A); and (e) a final reminder letter (see Appendix G) designed to stimulate response to the second mailing of the instrument. Both mailings of the instrument contained a return envelope for the participants to mail back the instrument to the researcher. The return envelope had the potential respondent's name and address in
the upper left-hand corner and served as the basis for keeping track of who returned instruments.

Data Analysis

The planned data analysis included: (a) descriptive statistics, (b) principal components analysis for the purpose of data reduction and construct validation, (c) correlation analysis, and (d) hierarchical multiple regression analysis for the purpose of identifying predictors of overall teacher job satisfaction. The specified descriptive statistics were: frequencies, percentages, means, standard deviations, and range statistics.

The specifications for the principal components analysis included (Tabachnick & Fidell, 1996): (a) orthogonal varimax rotation, (b) a factor loading criterion of ≥ .40, and (c) a factor extraction criterion of an eigenvalue of ≥ 1.0. The correlation analysis was based on Pearson correlation. The hierarchical multiple regression analysis included the following statistical output.

1. $R^2$ defined as the percentage of variance in the dependent variable (overall job satisfaction) explained by the linear combination of all control and predictor variables entered into the regression equation.
2. Adjusted-$R^2$ defined in a manner identical to $R^2$ and providing an adjustment to $R^2$ to account for the error associated with sampling.

3. $\Delta R^2$ defined as the percentage of variance in the dependent variable accounted for by a single independent, or set of independent variables, entered into the regression equation.

4. $\beta$ (beta) defined as the standardized regression coefficient (computed by converting all data to z-scores) and an indication of the relative contribution of a single independent variable to the explained variance in the dependent variable. The independent variable having the beta coefficient with the highest magnitude, regardless of sign (i.e., +/-), explains the most variance in the dependent variable.

Limitations

The results of this study should be viewed within the scope of the following study limitations. Generalization is limited due to the geographical location of the surveyed new teachers who were from only one school district within one state. While the sample has similar characteristics of new teachers from other large urban school districts, new teachers in other school districts in the state and other states, might have responded differently to the survey than
did the participants in the study. Secondly, the results are limited to those new teachers who voluntarily responded to the survey. Individuals who did not respond might have different perceptions than those who did respond to the survey. A description and interpretation of the results obtained from implementing the study described above appear in Chapter IV.
CHAPTER IV

RESULTS

This survey study was an investigation about the factors that influenced the job satisfaction of new teachers in the Jefferson County Public Schools (JCPS). The study had a correlation design (Stanley & Campbell, 1963) with correlation analysis and hierarchical multiple regression analysis (Cohen & Cohen, 1983) serving as the primary analytical techniques.

The researcher investigated the impact of personal characteristics on overall new teacher job satisfaction, including: (a) age, (b) gender, (c) marital status, (d), number of dependent children, (e), ethnicity, (f) highest educational level, (g) years of teaching experience, (h) current school assignment (elementary, middle school, high school), and (i) school CATS classification, cast as control variables. The independent variables of interest were both general job facets (e.g., benefits, time/salary) and the job-specific facets (e.g., teacher preparedness/ability, school leadership) of the position of teacher. The general and job-specific facets were composite
scales originating from a principal components analysis (Tabachnick & Fidell, 1996). This analysis, performed after data collection, reduced the data to a more manageable number of predictor variables (Stevens, 1992).

The dependent variable was a global measure of overall new teacher job satisfaction measured by an additive composite score of participant responses to items on a 5-point Likert-type scale (Brayfield & Rothe, 1951; Ironson, Smith, Brannick, Gibson 1989). The Likert-type scale measured the degree of participant overall satisfaction with the job of teacher (1 = not at all satisfied, 5 = extremely satisfied). An example of an item measuring overall job satisfaction was: "The degree to which I am satisfied overall with my job as classroom teacher."

Participants and Data Collection

The study population was 1,273 certified public school teachers employed by the Jefferson County Public Schools (JCPS) for three years or less. JCPS is a large urban school district in Kentucky serving over 98,000 students. The JCPS offices of Human Resources and Accountability, Research, and Planning provided a data file that facilitated the selection of new teachers for this study. The district-wide survey questionnaire about new teacher job satisfaction, administered by mail according to
survey procedures developed by Dillman (2000), yielded the final sample. A total of 638 teachers returned the survey questionnaire rendering a 50% response rate. According to Babbie (1990), "a response rate of at least 50 percent is generally considered adequate for analysis and reporting" (p. 182). The final sample ($N = 630$) contained usable surveys for analysis.

Data Analysis

The researcher conducted the data analysis in four phases: (a) descriptive statistics, (b) principal components factor analysis to reduce data and to establish construct validity, (c) correlation analysis, and (d) hierarchical multiple regression analysis to identify significant predictors of new teacher overall job satisfaction.

Descriptive Statistics

Table 1 displays descriptive statistics. The mean age of teachers in JCPS responding to the survey was 31. The survey indicated that 77.3% of the respondents were female and 22.5% were male. Of those individuals responding, 54.4% were married and 45.6% were single. Respondent ethnicity included 80.0% White American, 17.1% African American, .5% Hispanic American, 1.1% Asian American, .3% Native American, and 1.0% missing data.
<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
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<td>Age</td>
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<td>8.7</td>
<td>22-66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
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<td>Female</td>
<td>487</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>142</td>
<td>22.5</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Missing Data</td>
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<tr>
<td>Marital Status</td>
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<tr>
<td>Single</td>
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<tr>
<td>African American</td>
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<td>Asian American</td>
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<td>1.1</td>
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<td></td>
<td></td>
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<tr>
<td>Native American</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Missing Data</td>
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<td></td>
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<td># Dependent Children</td>
<td>.6</td>
<td>1.0</td>
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<tr>
<td>Master’s (Rank II)</td>
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<td>43.7</td>
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<td></td>
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<tr>
<td>Rank I</td>
<td>52</td>
<td>8.3</td>
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<td></td>
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<td>Education Specialist</td>
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<td></td>
</tr>
<tr>
<td>Doctorate</td>
<td>3</td>
<td>.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing Data</td>
<td>2</td>
<td>.3</td>
<td></td>
<td></td>
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<tr>
<td>Years JCPS Experience</td>
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<td>1.9</td>
<td>0-28</td>
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<tr>
<td>Current Teaching</td>
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<td></td>
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<td>Elementary School</td>
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<td></td>
</tr>
<tr>
<td>Middle School</td>
<td>121</td>
<td>19.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>179</td>
<td>28.4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Missing Data</td>
<td>1</td>
<td>.2</td>
<td></td>
<td></td>
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<tr>
<td>School CATS</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>In Need of Assistance</td>
<td>123</td>
<td>19.5</td>
<td></td>
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<tr>
<td>Progressing</td>
<td>240</td>
<td>38.1</td>
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<tr>
<td>Meets Goal</td>
<td>206</td>
<td>32.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing Data</td>
<td>61</td>
<td>9.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean number of respondent dependent children was .6. Table 1 shows the highest education level obtained by
the respondents: 47.1% Bachelor’s, 43.7% Master’s, 8.3%
Rank I, .1% Education Specialist, and .5% Doctorate. The
mean years of job experience among teachers responding to
the survey was 2.1. The current school assignments of the
participants were 52.2% elementary, 19.2% middle school,
and 28.4% high school.

There was less than 10% missing data for any one
variable entered into the multiple regression analysis.
Using Cohen and Cohen’s (1983, p. 292) criteria, the
researcher entered mean scores for missing interval data.
According to Cohen and Cohen, less than 10% is an
insignificant amount of missing data.

Principal Components and Reliability Analysis

The researcher used principal components analysis to
reduce the survey data to a more manageable number of
underlying dimensions for the multiple regression analysis.
Stevens (1992, p. 93) suggested this strategy to reduce
data before multiple regression analysis to improve the n/k
ratio and help with cross validation. Additionally, the
principal components analysis established construct
validity for the survey rating items.

The specifications for the principal components
analysis were: (a) varimax rotation, (b) component loading
criterion of ≥ .40. The researcher displayed the data from
this analysis in Tables 2 and 3. The researcher designed the survey instrument (See Appendix A) with 61 rating items. The numbers in Tables 2 and 3 listed before the name of a rating item correspond to the number of the item on the survey instrument. The researcher used Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test for sphericity to determine if the sample was sufficient for completing a principal components analysis. The results for both tests are located at the bottom of Tables 2 and 3 and indicate the correlation matrix was adequate to perform principal components analysis.

The data displayed on Table 2 indicate overall job satisfaction was a unitary component comprised of two rating items measuring overall job satisfaction (e.g., "My satisfaction with my role as classroom teacher as the job is currently defined" and "The degree to which I am satisfied overall with my job as classroom teacher"). The results of the principal components analysis indicated that the component extracted explained 84.4% of the variance in the two rating items. Coefficient alpha for the two-item composite scale was .81. The researcher chose overall job satisfaction to name the component.
### Table 2

**Component Matrix for Overall Job Satisfaction**

<table>
<thead>
<tr>
<th>SURVEY ITEMS</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>30. Satisfied w/role as defined</td>
<td>.92</td>
</tr>
<tr>
<td>61. Satisfied overall with job</td>
<td>.92</td>
</tr>
<tr>
<td><strong>Eigenvalue</strong></td>
<td><strong>1.69</strong></td>
</tr>
<tr>
<td><strong>Percent Variance Explained</strong></td>
<td><strong>84.4</strong></td>
</tr>
<tr>
<td><strong>Coefficient Alpha</strong></td>
<td><strong>.81</strong></td>
</tr>
</tbody>
</table>

Note. The above table represents a principal components analysis with these specifications: (a) no rotation for only two items, (b) component extraction criterion = Eigenvalue ≥ 1, (c) component loading criterion ≥ .40, (d) KMO = .50, and (d) Bartlett’s Test: $X^2 = 402.6 \ [df = 1, p \leq .0001]$. Cumulative Variance explained = 84.4%
<table>
<thead>
<tr>
<th>Survey Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Variety of work tasks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.43</td>
<td></td>
</tr>
<tr>
<td>2. Freedom to make decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Time to plan and prepare lessons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Opportunity to use talents and abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Involvement in school improvement planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Hours worked per week</td>
<td></td>
<td></td>
<td></td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Relationship with principal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.75</td>
<td></td>
</tr>
<tr>
<td>12. Co-workers recognize my contributions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.64</td>
<td></td>
</tr>
<tr>
<td>15. Classroom facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.51</td>
</tr>
<tr>
<td>17. Shared responsibilities with leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Diversity of students in classroom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.71</td>
<td></td>
</tr>
<tr>
<td>19. Days worked per year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.58</td>
<td></td>
</tr>
<tr>
<td>20. Able to use technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.68</td>
</tr>
<tr>
<td>21. Principal recognizes my contributions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>.77</td>
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Table 3 continues to next page.
<table>
<thead>
<tr>
<th>Survey Items</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. Involvement in preparing school budget</td>
<td>.78</td>
</tr>
<tr>
<td>24. Hiring staff</td>
<td>.80</td>
</tr>
<tr>
<td>25. Influence school policies</td>
<td>.74</td>
</tr>
<tr>
<td>26. Prepared to teach varying achievement levels</td>
<td>.62</td>
</tr>
<tr>
<td>28. Curriculum development</td>
<td>.48</td>
</tr>
<tr>
<td>29. Plan/lead professional development</td>
<td>.64</td>
</tr>
<tr>
<td>31. Recognition for work performed</td>
<td>.63</td>
</tr>
<tr>
<td>33. Involved in community relations</td>
<td>.49</td>
</tr>
<tr>
<td>34. Implement and manage instruction</td>
<td>.70</td>
</tr>
<tr>
<td>35. Prepared to communicate with students</td>
<td>.69</td>
</tr>
<tr>
<td>36. Retirement benefits</td>
<td>.76</td>
</tr>
<tr>
<td>37. Teaching materials</td>
<td>.58</td>
</tr>
<tr>
<td>38. Health care benefits</td>
<td>.81</td>
</tr>
<tr>
<td>39. Opportunity to use complex/higher-level skills</td>
<td>.59</td>
</tr>
<tr>
<td>40. Prepared to teach students from various backgrounds</td>
<td>.54</td>
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</tbody>
</table>

Table 3 continues to next page.
<table>
<thead>
<tr>
<th>Survey Items</th>
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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<tbody>
<tr>
<td>41. Skill level in relation to talents</td>
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<td>.60</td>
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<td>43. Time with family</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.71</td>
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<tr>
<td>44. Teamwork/cooperation with co-workers</td>
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<td></td>
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<td></td>
<td>.81</td>
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<tr>
<td>45. Apply learning from teacher education program</td>
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<td>.62</td>
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<td>46. Communicate learning results</td>
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<td>47. Maintain positive learning climate</td>
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<td>48. Prepared to handle discipline</td>
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<td>.59</td>
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<td>49. Prepared to communicate with parents</td>
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<td></td>
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<td>.59</td>
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<tr>
<td>50. Sense of achievement</td>
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<td></td>
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<td>.63</td>
<td></td>
</tr>
<tr>
<td>51. Design and plan instruction</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>.69</td>
<td></td>
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<td>52. Apply content knowledge</td>
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<td></td>
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<td>.72</td>
<td></td>
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<tr>
<td>53. Opportunity to help others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.61</td>
<td></td>
</tr>
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<td>54. Assess student progress</td>
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<td></td>
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<td>.54</td>
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</tr>
<tr>
<td>56. Reflect and evaluate teaching and learning</td>
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<td>.68</td>
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<tr>
<td>57. Salary</td>
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<td></td>
<td></td>
<td></td>
<td>.53</td>
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</tr>
</tbody>
</table>

Table 3 continues to next page.
Table 3 displays the analysis data of the job facet items. The principal components analysis resulted in the extraction of eight components. The eight factors extracted accounted for 61.1% of the variance in the job facet rating items. Coefficient alpha for the additive composite job facet scales ranged from .61 to .95. This range exceeded the minimum (α = .60) recommended for use of composite scales in statistical analysis (Nunnally & Bernstein, 1994). To construct the composite scales for the job facet

<table>
<thead>
<tr>
<th>Survey Items</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td>58. Collaboration with others</td>
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<td>60. Relationship with co-workers</td>
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| Eigenvalue   | 10.2 | 4.5 | 3.7 | 3.3 | 3.1 | 2.2 | 2.0 | 1.8 |
| Percent Variance Explained            | 18.2 | 8.1 | 6.6 | 5.9 | 5.5 | 4.0 | 3.6 | 3.1 |
| Coefficient alpha                      | .95  | .87 | .84 | .77 | .84 | .73 | .61 | .65 |
| Number of items                        | 20   | 8   | 4   | 4   | 4   | 2   | 3   | 3   |

Note. The above table reports a principal components analysis with these specifications: (a) varimax rotation, (b) component extraction criterion = Eigenvalue ≥ 1, (c) component loading criterion ≥ .40, (d) KMO = .96, and Bartlett’s Test: $X^2 = 19,571.4 \ [df = 1,540, p \leq .0001]$. Cumulative variance explained = 61.1%
items, the researcher considered two criteria for dropping an item from further analysis: (a) the job facet item did not load on any component (items #16, #23, and #42) and (b) the item loaded to a comparable magnitude on two or more components (item #27).

Reliability analysis of the components resulting from the job facet principal components analysis resulted in dropping components. Two components did not meet the reliability coefficient alpha necessary for remaining in subsequent statistical analysis (Nunnally & Bernstein, 1994). Component 9 had a coefficient alpha of .48 and component 10 had a coefficient alpha of .49. This resulted in the elimination of items #10, #32, #13, and #14.

Utilizing the above criteria, the researcher retained 48 items and eliminated eight items. The remaining items entered the correlation and multiple regression analyses.

Next, the researcher named the components extracted from the principal components analysis. Component 1, named Preparedness/Ability, consisted of 20 items related to the extent to which the teacher was prepared or able to perform the tasks associated with teaching (e.g., "The extent to which I am prepared to teach students of varying achievement levels"). Component 2 (School Leadership) consisted of eight items related to duties associated with
leading a school. An example of an item in Component 2 is, "My involvement in preparing the school budget." Component 3, Independence/Principal Recognition, contained four items related to the teacher’s freedom to make independent decisions and the recognition received from the principal such as, "the extent to which my principal recognizes the contributions I make." Component 4, named Time/Salary, consisted of four items related to the amount of time performing the job and spent with family, and the salary associated with the job (e.g., "The hours I work per week" and "My degree of satisfaction with my salary compared to the work I do"). Component 5, Co-workers, contained four items related to teamwork, collaboration with co-workers, and recognition received from co-workers (e.g., "The extent to which my co-workers recognize the contributions I make" and "The teamwork and cooperation I experience with my co-workers"). Component 6, Benefits, had two items dealing with health care and retirement benefits (e.g., "The retirement benefits provided by my employer"). Component 7, named Variety, contained three items related to the variety in the work and students (e.g., "the variety of work tasks in my job"). Component 8, the final component, named "Support Equipment/Materials" consisted of three items related to the facilities and materials needed to perform
the job (e.g., "The teaching materials available to me"). Following the naming of each component, the researcher performed the inferential statistical analysis.

Correlation and Multiple Regression Analysis

The researcher conducted the last stage of analysis by performing the correlation analysis shown in Table 4.
<table>
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<tr>
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* p ≤ .05, ** p ≤ .01

Table 4 continues to next page
Table 4 continued

Correlation Matrix for Dependent, Control, and Predictor Variables

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* P ≤ .05, ** P ≤ .01  

Table 4 continues to next page
### Table 4 continued

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* P ≤ .05, ** P ≤ .01  

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<td>.36**</td>
<td>.38**</td>
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</table>

* P ≤ .05, ** P ≤ .01
Correlation coefficients of plus or minus .08-1.0 were significant at alpha .05. Coefficients with a magnitude of plus or minus .11-.80 were significant at alpha .01. All of the job facet predictor variables had significant correlations (p ≤ .01) with the dependent variable, overall job satisfaction: Preparedness/Ability (.80), School Leadership (.47), Independence/Principal Recognition (.59), Time/Salary (.62), Co-Workers (.51), Benefits (.30), Variety (.56), Support Equipment/Materials (.48). The multiple regression analysis is in Table 5.

Only significant predictors are in Table 5, which displays the standardized beta coefficients derived from computing the regression equation after converting all data to z-scores. This conversion allows the researcher to work with variables having the same unit of measurement (i.e., standard deviation units). The researcher conducted the hierarchical multiple regression analysis by entering the control variables in the first step and the predictor variables in the second step. Of the control variables, only CATS classification was significant. CATS classification ceased to be significant when the predictor variables entered the equation. Table 5 also includes the results of $R^2$ indicating the percentage of variance in
overall new teacher job satisfaction explained by the significant predictor variables.

### Table 5

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<td>Benefits</td>
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<td>**</td>
<td>-2.9</td>
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</table>

Note. Full Model: \( R^2 = .71 \) \( (F[17, 551] = 76.9, p \leq .0001) \), Adjusted-\( R^2 = .69 \)  
* \( p \leq .05 \), ** \( p \leq .01 \), *** \( p \leq .0001 \)

As measured by the beta statistics, the order of the significant predictor variables from largest to smallest effect size was: Preparedness/Ability (\( \beta = .59 \)), Independence/Principal Recognition (\( \beta = .19 \)), Time/Salary (\( \beta = .18 \)), Benefits (\( \beta = -.08 \)), School Leadership (\( \beta = - \)
.08). According to Cohen and Cohen (1988, pp. 413-414), the criteria for effect sizes in multiple regression analysis include the following (a) large ($R^2 = .26$), (b) medium ($R^2 = .13$), and (c) small ($R^2 = .02$). The significant predictor variables, as reported by $R^2$, explain 71% of the variance in overall job satisfaction, a very large effect size. Educational leaders and policy-makers should examine these results when considering ways to improve the job satisfaction of teachers. Three of the five significant job facet components had positive correlations with overall job satisfaction. Although significant, School Leadership and Benefits had relatively weak, negative correlations with overall job satisfaction. A discussion of these results is in Chapter V.
CHAPTER V

DISCUSSION, IMPLICATIONS, AND CONCLUSION

This study examines factors that influence the job satisfaction of new teachers in the Jefferson County Public Schools (JCPS). The complexity of the job of teacher, and the job satisfaction related to the position, are important considerations in any attempt to address the national problem of new teacher turnover. New teachers who are not satisfied often exit the profession of teaching entirely within their first five years of employment (Ingersoll, 2001), thus contributing to the nation-wide shortage of qualified public school teachers (Ingersoll & Smith, 2003). Examples of the job duties of the position of teacher include: making efficient use of instructional methods and resources, creating and maintaining a classroom environment conducive to learning, and maintaining order in the classroom. Often, these job tasks are challenging for new teachers. Darling-Hammond and Sykes (2003) concluded that class size, availability of teaching resources, participation in decision-making, and administrator support affect the working conditions of teachers. Additionally,
the amount of time needed to prepare for and perform the job is also of concern. High-stakes accountability and educational reform have added to the pressures experienced by new teachers. The ever greater emphasis on student scores on standardized achievement tests cause many teachers to lose confidence in their ability to perform on the job (Bunting, 2006). Accordingly, research about factors such as those mentioned above is needed by leaders and administrators charged with improving the job satisfaction and performance of teachers.

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). Research about job satisfaction dates back to the early organization theorists (e.g., Herzberg, 1959; Maslow, 1970; Mayo, 1970; and Taylor, 1970). The earliest studies connected job satisfaction to work-related attitudes that influence behavior. Hulin, Rosnowski, and Hachiya (1985) presented a model of job satisfaction containing inputs and outcomes. The outcomes of low job satisfaction, depicted in their model as adaptations, are work avoidance and turnover. Turnover, as an adaptation, is of great importance to education administrators attempting to maintain a highly qualified workforce. The increase in
turnover among new teachers warrants further examination of job satisfaction of this group.

Implications for Practice

This study addressed the position of classroom teacher at the elementary, middle school, and high school levels within a large urban school district. The survey instrument used to collect data for this study derived from an extensive review of job satisfaction instruments, and included measures of general job facets identified by such authoritative job satisfaction researchers as Cranny, Smith, and Stone (1992) to be of great importance in examining the job satisfaction construct. The survey questionnaire also addressed job-specific facets that included widely held expectations and job duties for teachers. The study findings provide data for improving the job satisfaction and working conditions of teachers.

Descriptive Statistics

Descriptive statistics of this study indicate that women comprise 77.3% and men 22.5% of the study sample. This is consistent with state and national trend data that indicates that the teacher workforce is disproportionately comprised of women. Goldhaber and Liu (2003) examined the occupational choices of males and found that 50% indicated that teaching was not among the careers they were
considering. Of the men who did consider teaching, 39% admitted that they had not entered the teaching profession with the intention of remaining in teaching over the long term. Fewer males enter teacher education programs. Many of those who enter do so in anticipation of becoming educational administrators (Montecinos & Nielson, 1997). There is a concern that teacher education programs might be socializing students in a way that perpetuates the historical representation of the genders in the teaching profession. A recent Newsweek article chronicles the stories of several male teachers who share concerns about the negative public perception of male teachers (Scelfo, 2007).

The teacher workforce could benefit from an increase in males. This increase could bring diversity of thought and approach to addressing various working conditions. Understanding the factors that contribute to, or detract from, the job satisfaction of teachers is a preliminary step in working towards greater gender equity in the profession of teaching.

The distribution of ethnicity detected in this study is also representative of the overall teacher workforce. In this study, 80% of the teachers identified themselves as White. Of the remaining teachers, 17.1% identified
themselves as African American. Currently, African Americans make up 14.5% of the teaching workforce of Jefferson County Public Schools. As with gender, having a more diverse workforce is beneficial for both students and staff. Accordingly, both ethnicity and gender entered the analysis for this study as control variables.

The mean years of experience in this study was 2.1 years with a range from zero to 28 years. The purpose of the study was to include certified teachers with three years of experience or less. The few outliers represent previously non-certified preschool teachers who recently earned certification. Although these individuals have several years of experience, their ratings on the job satisfaction items did not differ from individuals newer to the profession. The mean age of the study participants was 31, indicating the participants represented a relatively young new teacher workforce. Understanding what contributes to high job satisfaction among these individuals holds the promise of assisting administrators in the task of keeping teachers in the profession for a long period of time and avoiding the disruption and expense of turnover.

Additionally, the study revealed a mean number of dependent children of .6 and a relative balance of married (54.4%) and single (45.6%) teachers. Often, younger
employees with no children are more apt to make decisions to leave their jobs. The job satisfaction model used as a conceptual framework in this study includes individual consideration of available employment alternatives. It is possible that teachers earlier in their work-life are considering these alternatives. If the working conditions and job satisfaction of these individuals are not desirable, they are likely to leave the profession long before retirement.

Inferential Statistics

The control variables in this study were the following personal characteristics: (a) age, (b) gender, (c) marital status, (d) ethnicity, (e) number of dependent children, (f) highest educational level, (g) years of teaching experience, (h) current school assignment, and (i) CATS classification. Of these demographic variables, marital status, years of experience, and CATS classification had significant correlations with job satisfaction. Married, more experienced individuals had higher job satisfaction. Although significant, the correlations were low in magnitude ($r = .08$). The relationship between job satisfaction and CATS classification was also positive, but moderate ($r = .20$). Teachers in schools meeting their goals are more satisfied. Teachers in schools needing assistance
are less satisfied. This would stand to reason due to the added pressures and frustrations experienced by teachers in an unsuccessful school. Educational administrators and policy makers should consider a school's achievement status when placing new teachers. A disproportionate number of new teachers in a struggling school could have profoundly negative ramifications due to the relative lack of job experience among new teachers.

The study findings reveal the importance of the job facet variables. Given the job facet variables explained 71% of the variance on overall job satisfaction; these variables have a high degree of practical significance. All of the job facet variables had significant, positive relationships with overall job satisfaction. Most importantly, five components surfaced as significant predictors of job satisfaction. These five factors are: (a) Preparedness/Ability, (b) School Leadership, (c) Independence/Principal Recognition, (d) Time/Salary, and (e) Benefits. These factors should be considered when formulating policies and programs aimed at retaining new teachers.

The two negative beta coefficients indicate that, controlling for the other variables in the equation, School Leadership and Benefits were inversely related to Overall
Job Satisfaction. It should be pointed out that the univariate relationships between these two predictors and the dependent variable were positive. The likely reason for the inverse relationship was the phenomenon of suppression (Tabachnick & Fidell, 2007). Variables in a regression equation (e.g., in this study, control variables or other job facet variables) may cause a partial regression coefficient to indicate no statistical significance or an inverse relationship.

The benefits component contained items related to the retirement and healthcare benefits provided by the employer. An explanation for the negative relationship might be that teachers are less concerned with retirement benefits early in the career.

The School Leadership component contained items related to (a) school improvement planning, (b) shared leadership responsibilities, (c) preparing school budget, (d) hiring staff, (e) school policies, (f) curriculum development, (g) planning and leading professional development, and (h) community relations. Typically regarded as the responsibility of the principal, site-based decision-making brought on by the Kentucky Education Reform Act allows for teacher participation in all of these aspects of leadership. The these factors would seem to be
of interest to administrators wanting teachers play a significant role in school management as intended by the KERA legislation.

Currently, the Kentucky teaching standards do not include school leadership, a work facet addressed directly by this study as noted above. A recent change in the evaluation of new teachers has suggested school leadership among standards expected of new teachers. EPSB is revising the state teacher standards to include leadership. Leadership standard would become the tenth standard and require that the teacher provide "professional leadership within the school, community, and education profession to improve student learning and well-being" (EPSB, 2006a, p. 18). Indicators of the standard include: (a) identifies leadership opportunities that enhance student learning and/or professional environment of the school, (b) develops a plan for engaging in leadership activities, (c) implements a plan for engaging in leadership activities, and (d) analyzes data to evaluate the results of planned and executed leadership efforts. EPSB (2006b) also recommends the following activities:

- Work with your colleagues on a program to improve learning opportunities for students in your school.
- Involve caregivers, members of the school community, or agencies in efforts to improve learning conditions or remove barriers to learning.

- Participate in Grade-level/Department-level planning.

- Are actively involved on tasks force(s) or committees.

- Implement school improvement within classroom.

- Develop and implement and/or facilitate strategies for parents/caregivers to become active participants in student learning.

- Organize, implement, and facilitate strategies for community involvement (p. 24).

These indicators and recommendations direct the new teacher's attention to the leadership aspect of the profession. Full implementation brings the expectation that teachers will remain actively involved with the leadership processes of the school beyond their first year.

The Time/Salary component contained items related to (a) time to plan and prepare lessons, (b) hours worked per week, (c) time spent with family, and (d) satisfaction with salary compared to the work. This component had a significant positive relationship with job satisfaction. Although teachers technically work seven hours per day and five days per week, it is typical for a teacher to spend
several hours each day and on the weekend planning lessons, grading papers, and communicating with parents. Dibbon (2004) found that almost half of the time a teacher spends preparing per week was on non-instructional tasks. Education administrators could consider distribution of non-instructional duties to non-certified instructional staff assigned to the school and time management professional development for new teachers. Even if non-instructional duties reside with non-certified staff, all teachers could benefit from time management training. Time management is a part of teacher preparation programs from the standpoint of pacing lessons and curriculum planning for the year. Rarely do programs address the day-to-day operations of a classroom teacher within the context of the school schedule and life outside the workday.

The Independence/Principal Recognition component also had a significant relationship with the overall job satisfaction of new teachers. The items in this component related to the relationship between the teacher and the principal. Specifically, the items addressed (a) the teacher’s freedom to make independent decisions, (b) the relationship with the principal, (c) recognition from the principal, and (d) general recognition for the work performed. The significance of this work factor is
consistent with previous research that focuses on the relationship between the administrator and teacher and teachers' decision-making ability as significant predictors of job satisfaction (Belasco & Alutto, 1972; Carpenter, 1971; Hollon & Gemmill, 1976; and Hoy & Sousa, 1984). Teachers who experience positive relationships with principals and are able to make decisions are more satisfied with their work and less likely to turnover.

The Preparedness/Ability component surfaced as the variable with the highest relative importance as a predictor of overall job satisfaction. This component contained 20 items related to teacher ability and the extent to which the teacher is prepared to perform various aspects of the job including those related to teaching standards discussed in Chapter I. These job-specific facets are clearly important predictors of job satisfaction.

There are two implications for the results in this study. Individuals responsible for the development of teacher preparation programs can use the connection between the teacher's job satisfaction and their perceived preparedness to address the challenges of teaching. Teacher education administrators should continue to work with state departments of education to align teaching standards with program and course requirements. Additionally, teacher
education programs should allow many opportunities for pre-service teachers to observe master teachers and develop their skills related to the standards. This provides an earlier implementation of the skills required to meet the standards and a greater likelihood that the individual feel prepared once they enter the classroom as a certified teacher.

Second, district administrators can provide support services for teachers during the first critical years of service. During this time, the teacher can receive support and feedback as they refine their skills. This support should extend beyond the first year on the job to maximize the possibility of retaining teachers into their second and third years of service and beyond.

The state of Kentucky has implemented the Kentucky Teacher Internship Program (KTIP) as a supportive, evaluative process for all new teachers. Teachers with fewer than two years of experience are required to enter KTIP for a full year (KRS161.030). During this process, new teachers, also referred to as interns, receive a support team made up of the principal, a resource teacher, and a teacher educator. Each member of the team conducts scheduled evaluation observations of the new teacher and provides feedback. The team also collaborates on the
support and professional development needed by the intern. Interns who do not successfully complete KTIP have one more year to do so. Upon successful completion of KTIP, interns receive a Kentucky teaching certificate. While this program is very successful, it only supports the teacher during the first, and maybe the second year of teaching.

Jefferson County Public Schools has addressed continuous support through its implementation of the Beginning Educator Support Team (BEST) Mentoring Program. The BEST Mentoring Program re-employs retired teachers and administrators to form a cohort of mentors who support new and struggling teachers. The mentors are matched with schools and teachers based on the number of new teachers in the building and/or the specific needs of the teacher. The mentors provide support ranging from confidant to modeling lessons.

The BEST mentor is not an evaluator and can therefore be trusted and relied upon for moral support of new teachers. BEST mentors receive compensation and ongoing professional development. Mentees and the principals of the schools they serve evaluate them. Since implementing the program, the district has experienced a reduction in turnover, particularly within the first six weeks of school. The continued success of the program is dependent
upon the ability to respond to the specific needs of the teachers and principals. The data from this study, and continued communication between principals and program administrators, can inform teacher training and professional development and allow new teachers to continue benefiting from needed professional support.

Implications for Research

This study developed an instrument to measure the job satisfaction of new teachers in a large urban school district. The use of existing instruments as a guide and the inclusion of widely held expectations of teachers added to the validity and practical usefulness associated with the instrument. Several respondents wrote notes on their surveys providing further explanation of their responses to certain items. Future research might make use of a mixed method design to obtain qualitative data to augment the quantitative results of this study.

Additionally, use of the Hulin et al. (1985) framework resulted in large effect sizes in the multiple regression analysis. The researcher concludes that the model would continue to provide a useful guide for future educational job satisfaction research. Future research might include an
examination of longitudinal data to determine if, when, and why any of the respondents leave the profession.

Conclusion

As one of very few teacher job satisfaction studies that focus on new teachers, this study helps to fill a void in the educational research. This study also focuses on teachers in a large urban setting resulting in the inclusion of one of the teacher groups most likely to turnover. The findings indicate that overall job satisfaction correlates significantly with preparedness/ability, school leadership, independence/principal recognition, time/salary, and benefits. Teacher education programs with the goal of training future urban educators might glean information useful in developing programs that address the needs identified by their most recent graduates. Additionally, education administrators in large urban school districts have reason to examine the results when making policy and program decisions aimed at retaining new teachers.

Both K-12 and higher education administrators experience the negative consequences of high new teacher turnover. Satisfied, successful teachers positively impact student learning. Whether the ultimate success of a teacher preparation program or retention of a highly qualified
workforce, new teacher job satisfaction is of great importance and warrants continued examination in educational research. Hopefully, other researchers will continue the stream of research initiated by the present study and, thereby, provide additional data about job satisfaction useful for improving working conditions and student learning in the nation's public schools.
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NEW TEACHER SURVEY

Preamble

Dear Colleague;

You are being invited to participate in a research study by completing the attached survey about how Jefferson County Public Schools (JCPS) new teachers (teachers employed in JCPS for three years or less) perceive various aspects of their job. Although completing the survey is voluntary, we hope you will agree to participate because information derived from this study may aid JCPS and other school districts in improving the working conditions and job satisfaction of new teachers. This study is being conducted by Aimee G. Webb, a human resources specialist for JCPS and a student in the University of Louisville’s College of Education and Human Development (CEHD) Doctoral Program, and Dr. Paul A. Winter who is a professor in CEHD. This research is sponsored by the Department of Leadership, Foundations, and Human Resource Education at UofL.

Your completed survey will be stored at the UofL within the Department of Leadership, Foundations, and Human Resource Education (ELFH). Individuals from ELFH, the Institutional Review Board (IRB), the Human Subjects Protection Program Office (HSPPO), and other regulatory agencies may inspect these records. In all other respects, however, the data will be held in confidence to the extent permitted by law. Should the data be published, neither your identity nor the identity of the school where you work will be disclosed.

Taking part in this study is voluntary. By completing this survey, you are agreeing to take part in this research. You do not have to answer any question that makes you uncomfortable. If you decide to be in this study you may stop taking part at any time. You may decline to participate without losing any benefits to which you are otherwise entitled.

If you have any questions about the study, you may contact the principle investigator, Dr. Paul A. Winter, at (502) 852-0617. If you have any questions about your rights as a research subject, you may call the Human Subjects Protection Program Office at (502) 852-5188. You will be given the opportunity to discuss any questions about your rights as a research subject, in private, with a member of the Institutional Review Board (IRB). The IRB is an independent committee made up of people from the University community, staff of the institutions, as well as people from the community not connected with these institutions. The IRB has reviewed this research study.

INSTRUCTIONS: Please check or fill in the information requested below that applies to you best. Please remember all information provided will remain anonymous and confidential. Responding to all items will assist in making the data for this study valid and reliable.

Please continue to the next page
Background Information

What is your age in years? __________

What is your gender?
   Female ______
   Male ______

What is your marital status?
   Married ______
   Single ______

How many dependent children do you have? ______

What is your ethnicity?
   White American ______
   African American ______
   Hispanic American ______
   Asian American ______
   Native American ______
   Other (please specify): _________________________

What is the highest education level you have achieved?
   Bachelor’s (Rank III) ______
   Master’s (Rank II) ______
   Rank I ______
   Education Specialist ______
   Doctorate ______

Work Experience

How many years have you been a classroom teacher in JCPS? ______

What is your primary school assignment (check one)?
   Elementary School ______
   Middle School ______
   High School ______

What is your school’s CATS classification?
   In Need of Assistance ______
   Progressing ______
   Meets Goal ______

Please continue to the next page
INSTRUCTIONS: The items shown below describe various aspects of the job of classroom teacher. To the right of each item is a 5-point scale that ranges from a low of 1 (Not at All Satisfied) to a high of 5 (Extremely Satisfied). Please circle one number for each scale that best reflects your opinion regarding your current level of job satisfaction.

<table>
<thead>
<tr>
<th>Job Characteristics</th>
<th>Not at all Satisfied</th>
<th>Extremely Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The variety of work tasks in my job.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>2. The freedom I have to make independent decisions.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>3. The amount of time I have to plan and prepare lessons.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>4. The opportunity to use my talents and abilities.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>5. My involvement in school improvement planning.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>6. The freedom I have to make independent decisions.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>7. The amount of time I have to plan and prepare lessons.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. The opportunity to use my talents and abilities.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>9. The hours I work per week.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>10. The number of students in my classroom.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>11. The relationship I have with my principal.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>12. The extent to which my co-workers recognize the contributions I make.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>13. The degree to which parents are involved in my school.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>14. The autonomy I experience in doing my job.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>15. The classroom facilities where I teach.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>16. The opportunity to advance my career.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>17. The degree to which I share responsibilities with school leadership.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>18. The diversity of students in my classroom.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>19. The days I work per year.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>20. The degree to which I am able to use technology.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>21. The extent to which my principal recognizes the contributions I make.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>22. My involvement in preparing the school budget.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>23. The opportunity I have to attend professional development.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>24. My participation in decisions to hire new staff.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>25. The extent to which I can influence school policies.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>26. The extent to which I am prepared to teach students of varying achievement levels.</td>
<td>1 2 3 4 5</td>
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<td>27. The opportunity I have to be creative and original.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>28. The opportunity I have to work on curriculum development.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>29. The opportunity I have to plan or lead professional development.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>30. My satisfaction with my role as classroom teacher as the job is currently defined.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>31. The degree to which I receive recognition for the work I perform.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>32. The degree to which I am prepared to teach special education students.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>33. The degree to which I am involved in public and school-community relations.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Please continue on to next page
### Job Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Not at All Satisfied</th>
<th>Extremely Satisfied</th>
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</thead>
<tbody>
<tr>
<td>34. The degree to which I am able to implement and manage instruction.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>35. The degree to which I am prepared to communicate with students.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>36. The retirement benefits provided by my employer</td>
<td>1 2 3 4 5</td>
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<tr>
<td>37. The teaching materials available to me.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>38. The health care benefits provided by my employer.</td>
<td>1 2 3 4 5</td>
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</tr>
<tr>
<td>39. The opportunity I have to use complex or higher-level skills.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>40. The extent to which I am prepared to teach students from various racial, ethnic, and socio-economic backgrounds.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>41. The skill level of responsibilities I have in relation to my talents.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>42. The extent to which I receive support from a mentor.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>43. The amount of time I am able to spend with my family.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>44. The teamwork and cooperation I experience with my co-workers.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>45. The degree to which I am able to apply what I learned in my teacher education program.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>46. The degree to which I am able to communicate learning results.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>47. The degree to which I am able to maintain a positive learning climate for students.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>48. The extent to which I am prepared to handle student discipline problems.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>49. The extent to which I am prepared to communicate with parents.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>50. The sense of achievement I experience in my job.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>51. The degree to which I am able to design and plan instruction.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>52. The degree to which I am able to apply content knowledge to my instruction.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>53. The opportunity I have to help others.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>54. The degree to which I am able to assess student progress.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>55. The amount of challenge provided by my job.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>56. The degree to which I am able to reflect on and evaluate teaching and learning.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>57. My degree of satisfaction with my salary compared to the work I do.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>58. The degree to which I can collaborate with others.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>59. The degree to which I am able to evaluate my teaching performance and implement a plan for professional development.</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>60. The relationships I have with my co-workers.</td>
<td>1 2 3 4 5</td>
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</tr>
<tr>
<td>61. The degree to which I am satisfied overall with my job as classroom teacher.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

- THANK YOU -
## Tentative Data Scoring Guide

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>Actual Years</td>
</tr>
<tr>
<td>2. Gender</td>
<td>Dummy Coded</td>
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<td>5. White American</td>
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<td>6. African American</td>
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<td>7. Hispanic American</td>
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<td>8. Asian American</td>
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<td>9. Native American</td>
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<td>10. Other</td>
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<td>Ethnicity Recorded</td>
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<td>Doctorate</td>
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<td>14. JCPS Teaching Experience</td>
<td>Actual Years</td>
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<td>15. Current School Assignment</td>
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<td>Middle School</td>
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Data Scoring Guide Continued

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<td>In Need of Assistance</td>
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<td>Meets Goal</td>
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Job Characteristics

17. - 77. Rating items 1-60                         | Scored 1-5 |
DATE

Dear Colleague:

I am a personnel specialist for Jefferson County Public Schools pursuing a doctoral degree through the University of Louisville College of Education and Human Development. A few days from now, you will receive a request to participate in an important research project approved by the University of Louisville and JCPS.

The purpose of the research is to study the job satisfaction of teachers in a large urban school district. The present working conditions of teachers, the unique circumstances of new teachers, and their job satisfaction provide researchers with information useful for improving the working conditions of teachers.

Thank you for your time and consideration.

Sincerely,

Aimee Webb
Personnel Specialist
Jefferson County Public Schools
Appendix D

Initial Cover Letter

DATE

Dear Colleague:

Attached to this letter is a survey questionnaire about teacher job satisfaction. Participation is voluntary and we hope you will elect to participate. Please note we are using a return address only to help us track responses during data collection so we do not send follow-up reminders to individuals who have already returned their survey in the stamped, addressed return envelop provided.

The preamble of the attached questionnaire provides background information about the study and information about the approvals the research has received. We hope this study will provide educational leaders with information useful for improving the working conditions of teachers and retaining a high quality work-force for our students.

Thank you for considering this invitation to participate.

Sincerely,

Aimee Webb
Personnel Specialist
Jefferson County Public Schools
Appendix E

First Reminder Letter

DATE

Dear Colleague:

About 10 days ago, you received a cover letter and a survey questionnaire about teacher job satisfaction. As of today, we have not received your survey and we hope you may yet decide to participate in this important research by returning the completed survey in the return envelope provided. As a teacher in Jefferson County, you are the most qualified professional to provide information that may be useful in improving the job satisfaction and working conditions of teachers.

While your participation is voluntary, the data becomes more meaningful as more new teachers respond. Thank you for your further consideration of this request to participate in this research study.

Sincerely,

Aimee Webb
Personnel Specialist
Jefferson County Public Schools
Dear Colleague:

About three weeks ago, we sent you a survey questionnaire about teacher job satisfaction. As of today, we have not received your survey response. We are conducting this research to obtain information regarding the working conditions and job satisfaction of teachers in Jefferson County.

Your participation is voluntary, but we hope you decide to participate in this study. In case you may no longer have the survey questionnaire, another copy is attached to this letter along with a stamped, return envelope. The survey preamble describes the research and the approvals the study has received.

Thank you for your consideration.

Sincerely,

Aimee Webb
Personnel Specialist
Jefferson County Public Schools
Appendix G

Second Reminder Letter

DATE

Dear Colleague:

About four weeks ago, we sent you a survey questionnaire about teacher job satisfaction. As of today, we have not received your survey. Achieving a high response rate improves the reliability of the data obtained. This letter is our final reminder. Participation is voluntary, but we hope you will decide to participate in this study. The information gained from this study will be useful in improving the working conditions of teachers.

Thank you for receiving this final reminder. Your opinion regarding teacher job satisfaction is important to us.

Sincerely,

Aimee Webb
Personnel Specialist
Jefferson County Public Schools
CURRICULUM VITAE
AIMEE G. WEBB

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VanHoose Education Center
3332 Newburg Road
Louisville, KY 40218

Phone
(502) 485-3765

E-mail
aimee.webb@jefferson.kyschools.us

Fax
(502) 485-6400

HOME ADDRESS
4506 Goshawk Ct.
Louisville, KY 40241

Phone
(502) 412-2355

E-Mail
amgwebb@insightbb.com

EDUCATION

Graduate
Ph. D. Candidate
Educational Leadership - P-12 Administration

Master of Education
Reading Education/Rank I
Reading and Writing Endorsement

Master of Education
Physical Education
School & Community Health

Undergraduate
K-4, 5, 6 Teaching Certificate
ACES Program

Bachelor of Science
Biological Sciences

University of Louisville
Louisville, KY

University of Louisville
Louisville, KY

University of Louisville
Louisville, KY

Jefferson County Public Schools

Grambling State University
WORK EXPERIENCE

Human Resources
Jefferson County Public Schools
January, 2007 to Present
Human Resources Specialist
Coordinate district internship program (KTIP)
Coordinate placement and professional development for the
BEST Mentoring Program
Coordinate instructional program for ACES and collaboration
with EPSB
Recruiting and observing pre-service teachers
Collaboration with AR&D on special projects for minority
aspiring leaders

Human Resources
Jefferson County Public Schools
2004 through 2006
Administrative Intern,
Minority Teacher Recruitment Project Coordinator
Coordinate opportunities for students in middle and high
school MTRP/FEA clubs & collaborate with principals on club
operations and co-op placements
Recruiting and observing pre-service teachers
Collaboration with state colleges and universities and the
Kentucky Department of Education
Coordinate instructional program for the ACES program and
collaboration with EPSB

Curriculum & Assessment
Jefferson County Public Schools
2002 to 2004
Writing Resource Teacher &
Regional Consultant
Curriculum Development
Instructional support and professional development for KY
Region 3, Writing Cluster Leaders, Instructional Coaches,
principals, and classroom teachers

Instructional Support
Jefferson County Public Schools
1999 to 2002
Resource Teacher &
Instructional Coach

Instructional support and professional development for staff of Foster Academy, assigned schools and instructional coaches
Collaboration with principals to develop instructional program of school in accordance with the Comprehensive School Improvement Plan
KTIP & ACES Resource Teacher
ACES Instructor

Foster Traditional Academy  1994 to 1999
Jefferson County Public Schools  Louisville, KY

Perform the duties as teacher of record
Consolidated Plan/Transformation Plan Committee/Leadership Team
Cooperating teacher for student teacher

HONORS
Golden Key International Honors Society (Charter Graduate Student Member)
AMGEN Award for Teacher Excellence Nominee
Sallie Mae First Class Teacher Award Nominee
Mantle Recipient from Retiring Teachers (GLABSE)

COMMUNITY INVOLVEMENT AND VOLUNTEERISM
University of Louisville College of Education Graduate Student Association
Greater Louisville Alliance of Black School Educators
Greater Louisville YMCA Black Achievers
Eagles Cove Home Owners Association, Board of Directors