

---

Theses and Dissertations

---

2012

# Organizational commitment of principals: The effects of job autonomy, empowerment, and distributive justice

David Joseph Dude  
*University of Iowa*

Copyright 2012 David Joseph Dude

This dissertation is available at Iowa Research Online: <http://ir.uiowa.edu/etd/2863>

---

## Recommended Citation

Dude, David Joseph. "Organizational commitment of principals: The effects of job autonomy, empowerment, and distributive justice." PhD (Doctor of Philosophy) thesis, University of Iowa, 2012. <http://ir.uiowa.edu/etd/2863>.

---

Follow this and additional works at: <http://ir.uiowa.edu/etd>



Part of the [Educational Administration and Supervision Commons](#)

ORGANIZATIONAL COMMITMENT OF PRINCIPALS: THE EFFECTS OF  
JOB AUTONOMY, EMPOWERMENT, AND DISTRIBUTIVE JUSTICE

by  
David Joseph Dude

An Abstract

Of a thesis submitted in partial fulfillment of the  
requirements for the Doctor of Philosophy  
degree in Educational Policy  
and Leadership Studies in  
the Graduate College of  
The University of Iowa

May 2012

Thesis Supervisor: Professor Alan Henkin

## ABSTRACT

Organizational commitment has been a topic of extensive interest in the organizational behavior literature since the 1950's. It has been associated with workforce stability, decreased absenteeism, organizational citizenship behaviors, and decreased turnover. This study focuses on the relationships between organizational commitment and turnover; particularly amongst K-12 school principals.

A principal of a school is much like the CEO of a company. Principals impact schools in many ways. They supervise staff, develop culture, implement and enforce rules, guide instruction and ensure that all students receive a quality education.

The United States is facing a shortage of principals. Many principals are nearing retirement age. Others are simply choosing to leave the profession. In many cases there are shortages of applicants and/or qualified candidates for available positions. Many teachers hold administrative credentials but, for various reasons, choose not to pursue the principalship.

School systems are facing difficulties filling principal positions. One potential solution is to endeavor to keep current principals on the job. Organizational commitment is highly correlated with intent to stay; promoting the suggestion that schools may retain principals for longer periods where organizational commitment is significantly higher.

This study focuses on the impact of job autonomy, psychological empowerment, and distributive justice on organizational commitment. The study uses data from a web-based survey of 1,078 principals. The data were collected from K-12 principals in the Midwest United States. The sample includes elementary and secondary principals from public, private/parochial schools, and charter schools.

Hypotheses regarding the impact of job autonomy, psychological empowerment, and distributive justice on organizational commitment were tested using multiple regression and path analysis. Increases in each of these variables were found to be

significantly associated with increases in organizational commitment. In addition, some support was found for the moderating effects of distributive justice and demographic variables on the relationship between job autonomy and organizational commitment, and on the relationship between psychological empowerment and organizational commitment.

Implications for those who supervise principals are discussed. For instance, principals may be provided latitude and discretion in terms of the scheduling and sequencing of supervisory work, and may employ consultative, mutual-means approaches in principal evaluation. School systems should, moreover, provide appropriate professional development in order to increase feelings of self-efficacy.

Recommendations for future research are also suggested, including replicating the study in other regions and with other organizational types, as well as including other variables, such as perceived organizational support, resistance to change, conflict, and teamwork.

Abstract Approved: \_\_\_\_\_  
Thesis Supervisor  
\_\_\_\_\_  
Title and Department  
\_\_\_\_\_  
Date

ORGANIZATIONAL COMMITMENT OF PRINCIPALS: THE EFFECTS OF  
JOB AUTONOMY, EMPOWERMENT, AND DISTRIBUTIVE JUSTICE

by  
David Joseph Dude

A thesis submitted in partial fulfillment of the  
requirements for the Doctor of Philosophy  
degree in Educational Policy  
and Leadership Studies in  
the Graduate College of  
The University of Iowa

May 2012

Thesis Supervisor: Professor Alan Henkin

Copyright by  
DAVID JOSEPH DUDE  
2012  
All Rights Reserved

Graduate College  
The University of Iowa  
Iowa City, Iowa

CERTIFICATE OF APPROVAL

---

PH.D. THESIS

---

This is to certify that the Ph.D. thesis of

David Joseph Dude

has been approved by the Examining Committee  
for the thesis requirement for the Doctor of Philosophy  
degree in Educational Leadership and Policy Studies  
at the May 2012 graduation.

Thesis Committee: \_\_\_\_\_  
Alan B. Henkin, Thesis Supervisor

\_\_\_\_\_  
Marcus Haack

\_\_\_\_\_  
Gregory Hamot

\_\_\_\_\_  
Liz Hollingworth

\_\_\_\_\_  
Carolyn Wanat

To Amanda, Maren, Benjamin, and Kirsten



## ACKNOWLEDGMENTS

Thank you to my advisor, Al Henkin, for his willingness to support me despite my non-traditional approach to graduate school. He was always willing to adapt while I changed jobs and moved around the Midwest, without ever compromising his high standards. I am grateful for his support, his willingness to share a seemingly endless knowledge base, and his sense of humor. I will do my best to avoid sesquipedalian tergiversation, Al.

My friend and colleague, Liz Hollingworth, has always been willing to listen to my frustrations and suggest solutions. She has made it possible for me to navigate the world of higher education despite much of my time being spent off campus. Liz always puts her students first, as every great teacher does.

I am grateful that my parents, Paul and Ginger, instilled in me a love of learning that will be with me for life. They have taught me the value of pushing on no matter what life throws at you. They always put their children first, and I hope to follow their model with my own children.

Finally, I am forever indebted to my wife, Amanda, and my children, Maren, Benjamin, and Kirsten. Amanda's support never wavered throughout my many years of graduate school. There were times when I was ready to throw in the towel and she was always there to keep me on track. She has been with me every step of the way, and this accomplishment is as much about her as it is about me. I look forward to the opportunity to support her in her future professional and educational endeavors the way she has supported me for so many years.

I began graduate school before my oldest child was born. Maren is now six years old, Benjamin just turned three, and Kirsten is almost one year old. While I tried to limit my graduate school work to hours when they were sleeping, that wasn't always possible. I am thankful for their love and support, and I look forward to many evenings and weekends of play to come! Daddy's home!

## ABSTRACT

Organizational commitment has been a topic of extensive interest in the organizational behavior literature since the 1950's. It has been associated with workforce stability, decreased absenteeism, organizational citizenship behaviors, and decreased turnover. This study focuses on the relationships between organizational commitment and turnover; particularly amongst K-12 school principals.

A principal of a school is much like the CEO of a company. Principals impact schools in many ways. They supervise staff, develop culture, implement and enforce rules, guide instruction and ensure that all students receive a quality education.

The United States is facing a shortage of principals. Many principals are nearing retirement age. Others are simply choosing to leave the profession. In many cases there are shortages of applicants and/or qualified candidates for available positions. Many teachers hold administrative credentials but, for various reasons, choose not to pursue the principalship.

School systems are facing difficulties filling principal positions. One potential solution is to endeavor to keep current principals on the job. Organizational commitment is highly correlated with intent to stay; promoting the suggestion that schools may retain principals for longer periods where organizational commitment is significantly higher.

This study focuses on the impact of job autonomy, psychological empowerment, and distributive justice on organizational commitment. The study uses data from a web-based survey of 1,078 principals. The data were collected from K-12 principals in the Midwest United States. The sample includes elementary and secondary principals from public, private/parochial schools, and charter schools.

Hypotheses regarding the impact of job autonomy, psychological empowerment, and distributive justice on organizational commitment were tested using multiple regression and path analysis. Increases in each of these variables were found to be significantly associated with increases in organizational commitment. In addition, some

support was found for the moderating effects of distributive justice and demographic variables on the relationship between job autonomy and organizational commitment, and on the relationship between psychological empowerment and organizational commitment.

Implications for those who supervise principals are discussed. For instance, principals may be provided latitude and discretion in terms of the scheduling and sequencing of supervisory work, and may employ consultative, mutual-means approaches in principal evaluation. School systems should, moreover, provide appropriate professional development in order to increase feelings of self-efficacy.

Recommendations for future research are also suggested, including replicating the study in other regions and with other organizational types, as well as including other variables, such as perceived organizational support, resistance to change, conflict, and teamwork.

## TABLE OF CONTENTS

LIST OF TABLES .....	viii
LIST OF FIGURES .....	ix
CHAPTER I: INTRODUCTION.....	1
Principals Impact Schools.....	2
Turnover .....	3
Tangible Costs .....	4
Intangible Costs .....	6
Principal Shortages .....	6
Aging/Retirements.....	7
Shortage of Candidates.....	8
Unqualified Candidates .....	9
Certified but not Applying.....	9
Principal Retention .....	10
Organizational Commitment and Principal Retention .....	10
Positive Outcomes of Organizational Commitment in Principals.....	11
Theoretical Framework.....	12
Purpose of the Study.....	14
Research Questions.....	14
Definition of Terms .....	15
Study Context .....	16
Limitations of the Study .....	17
CHAPTER II: THEORETICAL FRAMEWORK AND LITERATURE REVIEW .....	19
Organizational Commitment .....	19
Antecedents .....	22
Outcomes.....	23
Job Autonomy.....	26
Antecedents .....	29
Outcomes.....	29
Empowerment.....	31
Antecedents .....	32
Outcomes.....	33
Distributive Justice .....	34
Outcomes.....	35
Demographic Variables .....	36
Hypotheses.....	37
CHAPTER III: METHODOLOGY .....	39
Study Population.....	39
Data Collection .....	39
Instruments .....	40
Organizational Commitment .....	41
Job Autonomy .....	42
Psychological Empowerment.....	43
Distributive Justice .....	44
Control Variables.....	44

Statistical Methodology.....	45
CHAPTER IV: ANALYSIS OF DATA AND FINDINGS.....	48
Validation and Construction of the Instrument .....	49
Reliability of the Instrument.....	52
Assumptions .....	53
Demographic Characteristics.....	54
Regression Analyses.....	56
Hypothesis Testing .....	57
Hypothesis 1 .....	57
Hypothesis 2 .....	57
Hypothesis 3 .....	60
Hypothesis 4 .....	61
Hypothesis 5 .....	62
Hypothesis 6 .....	64
Hypothesis 7 .....	67
Path Analysis .....	70
Job Autonomy and Empowerment Total Score as Intervening Variables to Organizational Commitment.....	71
Job Autonomy and Empowerment Sub-Scales as Intervening Variables to Organizational Commitment.....	76
Importance of Variables .....	79
CHAPTER V: DISCUSSION AND ANALYSIS .....	81
Organizational Commitment .....	81
Job Autonomy.....	82
Psychological Empowerment .....	83
Distributive Justice .....	84
Methods .....	85
Hypothesis 1 .....	85
Hypothesis 2 .....	86
Hypothesis 3 .....	86
Hypothesis 4 .....	87
Hypothesis 5 .....	88
Hypothesis 6 .....	89
Hypothesis 7 .....	90
Discussion of Path Analysis and the Overall Model .....	91
Organizational and Policy Implications.....	91
Recommendations for future research.....	97
APPENDIX: SURVEY.....	100
REFERENCES .....	117

## LIST OF TABLES

Table 1. Descriptions of abbreviations for variables. ....	48
Table 2. Principal Component Analysis with Varimax Rotation, All Items .....	50
Table 3. Principal Component Analysis with Varimax Rotation, Empowerment Items.....	52
Table 4. Sub-scale Reliability Coefficients .....	53
Table 5. Correlation Coefficients Matrix among Independent Variables.....	55
Table 6. Summary of Demographic Variables and Comparison to National Sample .....	58
Table 7. Statistically Significant Relationships between Attitudinal and Demographic Variables. ....	59
Table 8. Contribution of Autonomy to Commitment. ....	59
Table 9. Contribution of Empowerment and Empowerment Factors to Commitment. ....	60
Table 10. Contribution of Distributive Justice to Commitment. ....	61
Table 11. Contribution of Autonomy and Distributive Justice to Commitment.....	62
Table 12. Contribution of Empowerment, Empowerment Factors, and Distributive Justice to Commitment. ....	64
Table 13. Contribution of Autonomy and Demographic Variables to Commitment. ....	67
Table 14. Contribution of Empowerment, Empowerment Factors, and Demographic Variables to Commitment. ....	72
Table 15. Path Analysis Results for Organizational Commitment (Using Empowerment Total Score): Standardized Coefficients and P-values.....	77
Table 16. Path Analysis Results for Organizational Commitment (Using Empowerment Sub-Scales): Standardized Coefficients and P-values.....	78
Table 17. Ranking of Importance of Variables Based on Standardized Total Effects on Organizational Commitment.....	80
Table 18. Summary of Hypothesized Findings.....	82

## LIST OF FIGURES

Figure 1. Path model of organizational commitment relative to study hypotheses. ....	38
Figure 2. A sample path model. ....	46
Figure 3. Commitment as a Function of Empowerment and Distributive Justice. ....	65
Figure 4. Commitment as a Function of Meaning and Distributive Justice. ....	65
Figure 5. Commitment as a Function of Self-Determination and Distributive Justice. ....	66
Figure 6. Commitment as a Function of Tenure and Autonomy. ....	68
Figure 7. Commitment as a Function of Gender and Empowerment. ....	73
Figure 8. Commitment as a Function of Tenure and Empowerment. ....	73
Figure 9. Commitment as a Function of Gender and Meaning. ....	74
Figure 10. Commitment as a Function of Tenure and Meaning. ....	74
Figure 11. Commitment as a Function of Education and Self-Determination. ....	75
Figure 12. Commitment as a Function of Education and Impact. ....	75
Figure 13: Page 1 of online survey (screenshot).....	100
Figure 14: Page 2 of online survey (screenshot), only displayed to those who chose “Superintendent” on the first page. ....	101
Figure 15: Page 3 of online survey (screenshot), only displayed to those who chose “Principal” on the first page. ....	102
Figure 16: Page 4 of online survey (screenshot), measure of job autonomy (Breugh, 1985) ....	103
Figure 17: Page 5 of online survey (screenshot), measure of empowerment (Spreitzer, 1995) ....	104
Figure 18: Page 6 of online survey (screenshot), measure of organizational commitment (Price, 1997) ....	105
Figure 19: Page 7 of online survey (screenshot), measure of distributive justice (Price & Mueller, 1986).....	106
Figure 20: Page 8 of online survey (screenshot), measure of procedural justice (Colquitt et al., 2001).....	107
Figure 21: Page 9 on online survey (screenshot), measure of resistance to change (Oreg, 2003).....	108

Figure 22: Page 10 of online survey (screenshot), measure of resistance to change cont. (Oreg, 2003).....	109
Figure 23: Page 11 of online survey (screenshot), measure of conflict.....	110
Figure 24: Page 12 of online survey (screenshot), demographic information.....	111
Figure 25: Page 12 of online survey continued (screenshot), demographic information.....	112
Figure 26: Page 13 of online survey (screenshot), demographic information continued.....	113
Figure 27: Page 13 of online survey continued (screenshot), demographic information continued.....	114
Figure 28: Page 13 of online survey continued (screenshot), demographic information continued.....	115
Figure 29: Page 14 of online survey (screenshot), opportunity to receive notification of research results .....	116



## CHAPTER I: INTRODUCTION

Organizational commitment has been viewed as an attitude indicating feelings of achievement, identification with and/or loyalty to the object of commitment; here, an organization (Morrow, 1993). Organizational commitment has been linked to workforce stability (Steers, 1977), school climates conducive to learning (Dannetta, 2002; Ebmeier, 2003), increased expectations for student achievement (Kushman, 1992), enhanced supervisor-subordinate relationships (Kushman, 1992), decreased turnover (Mowday, Porter, & Steers, 1982), decreased intention to leave (Tett & Meyer, 1993), low absenteeism (Cohen, 1993; Zahra, 1984), increased organizational citizenship behaviors—such as suggesting improvements, assisting colleagues, and putting forth extra effort (Brief & Motowidlo, 1986), and many others.

While most outcomes of organizational commitment benefit the organization, some benefit the individual. For instance, Begley and Czajka (1993) found that organizational commitment had a moderating effect on the impact of stress. When organizational commitment was low, individuals felt increased job displeasure due to stress, but when organizational commitment was high, individuals felt less effects due to stress. It could also be argued that decreased turnover benefits the individual in addition to the organization. Turnover can impact individuals emotionally and financially and, therefore, avoiding it may be individually beneficial (Holtom, Mitchell, Lee, & Eberly, 2008).

Some organizational commitment outcomes may even benefit society as a whole. Researchers have found that increases in organizational commitment are associated with school climates that are conducive to learning and increased expectations for student achievement (Dannetta, 2002; Ebmeier, 2003; Kushman, 1992). Since education serves societal needs, such outcomes are beneficial to society.

Of particular interest to this study, organizational commitment has been found to be a stable indicator of an employee's intent to remain in a given job (Meyer & Allen, 1997; Mowday et al., 1982; Steers, 1977). Many jobs require a great deal of training, and, therefore, investment on the part of the employer. It is in an employer's best interest to retain employees in order to maximize return on investment in those employees. This is especially true of the diminishing pool of school principals, the focus of this study. It is suggested then, here, that a principal's organizational commitment may be impacted by psychological empowerment, distributive justice, and job autonomy.

### Principals Impact Schools

A principal in a school district is obligated to gain a working knowledge of the policies and procedures of the district, and must comprehend the culture of the district, and, concurrently, strengthen the culture of the school. The principal of the building is much like a CEO of that building. He/She supervises staff, develops culture, implements and enforces rules, guides instruction, and often leads curriculum development. A strong principal is an important aspect of an effective school (Marzano, Waters, & McNulty, 2005). In fact, Marzano et al. (2005) suggest that the leadership provided by the principal is directly linked to many aspects of school success, including teacher effectiveness, school climate and culture, and learning opportunities for students. There is extensive support suggesting that principals have considerable impact on schools (Barth, 2001; Brookover et al., 1982; Daresh, 1986; Edmonds, 1981; Fuller, Young, & Orr, 2007). The principal is responsible for ensuring that each student receives a quality education, and he/she plays a central role in that process (Center for American Progress, 2008; Educational Research Service, 2003; Fuller & Young, 2009; Fuller, Young, & Baker, 2007; Hallinger & Heck, 1998; Hill & Banta, 2008; Hopkins, 1998; Leithwood & Jantzi, 2000; Leithwood & Riehl, 2003; Schlechty, 1997; Southern Regional Education Board, 2008; Tucker, 2003; University Council for Educational Administration, 2008).

The principal of a school is responsible for building a culture that supports increasing student achievement (Groff, 2001). Strauss (2003) found that one way principals directly impact student achievement is through the teacher hiring process. In schools where a large proportion of teachers were hired by the same principal, Brewer (1993) found evidence for higher student achievement.

It takes time to build culture and make other changes necessary to impact student achievement. Fuller and Young (2009) estimated that it takes four years for an effective principal to implement lasting improvements. Fullan (1991) asserted that, "The total time frame from initiation to institutionalization is lengthy, [and] even moderately complex changes take from three to five years, while major restructuring efforts can take five to ten years" (p. 49). Fuller (2007) suggested in a presentation to the National Policy Board for Educational Administration, that, "School reform takes time. Principal turnover negatively affects teacher retention, teacher quality, and student achievement. Stability is needed to develop strong, trusting relationships and more positive working condition."

In support of these findings related to the time necessary to implement change, several researchers have found that schools that have experienced excessive principal turnover are less likely to have lasting school reform (Davidson & Taylor, 1998; Miskel & Cosgrove, 1985).

### Turnover

Different principals will have different ways of operating and leading. Consequently, it is likely to be extremely disruptive to a school where there is extensive turnover in principals (Dalton, Krackhardt, & Porter, 1981; Staw, 1980). In addition, as principal turnover increases, teacher turnover increases (Fuller, Young, & Baker, 2007). Given findings on stability discussed previously, that is concerning.

There are many explanations for principal turnover. Some believe that a leading factor in principal turnover is the changing role of the principalship (Whaley & Cox,

2002). A modern principal must assume many different roles, from building manager to instructional leader, accountant to public relations liaison, disciplinarian to counselor (Institute for Educational Leadership, 2000). Others have pointed out that there has been relatively little research done on the motivational factors underlying turnover, such as work motivation and job autonomy (Richer, Blanchard, & Vallerand, 2002).

Researchers examined retention rates in three-year intervals between 1995 and 2007 (1995-1998, 1998-2001, 2001-2004, 2004-2007), and found that principal turnover rates gradually increased in each of those periods (Fuller & Young, 2009). In the final period, 2004-2007, 52% of the principals had left. The highest turnover was at the high school level, where 61% of principals left during the 2004-2007 period. They also found that the lowest turnover rate was at the elementary level; the greatest increase since 1995, however, has been at that level.

Since most principals start as teachers, teacher turnover rates are also relevant to this discussion. Woods and Weasmer (2002) found that 50% of all new teachers leave the profession during their first five years of teaching. On average, the annual loss of teachers is one seventh of the workforce (Ingersoll, 2001).

### Tangible Costs

In addition to disruptions to student achievement described previously, there are also financial costs associated with principal turnover. Smith and Watkins (1978) pioneered inquiry into the actual costs associated with employee turnover. They found that costs related to separation, replacement, and training. Separation costs included paying employees to conduct and participate in exit interviews, administrative functions related to termination, and unemployment tax. Replacement costs include communicating job availability through newspapers (and now websites), pre-employment administrative functions, entrance interviews, staff meetings, and in-house or contracted medical exams. Training costs include production and distribution of informational literature, instruction

in a formal training program, and instruction based on the employee's particular assignment. Thirty years later researchers are still discussing those same tangible costs of turnover (Abbasi, Hollman, & Hayes, 2008).

Benner (2000) found that hiring costs vary from district to district, and that some districts pay signing bonuses, and have other recruiting costs specific to schools that are difficult to staff. Rebore (2004) acknowledged a growing trend in school districts hiring private employment agencies to staff school executive positions. Toppo (2007) found that some school districts are offering incentive packages to attract potential new principals, and to encourage experienced principals to stay on the job to mentor the new principals.

Many researchers have attempted to quantify the actual financial impact of turnover. While estimates vary considerably, they are all significant amounts of money. On the low end, the Alliance for Excellent Education (2005) estimated the cost at 30% of the leaver's (i.e., the person leaving the position) salary, and Hauenstein (1999) estimated the cost at 35% of the leaver's salary (including the cost of benefits). On the high end, Fitz-enz (1997) estimated the cost of turnover could be double the annual salary and benefits of the leaver, and Breaux and Wong (2003) estimated the cost at 2.5 times the leaver's salary. Even if one is conservative and, therefore, accepts the low estimates, 30% of a principal's salary is a significant amount of money to most school districts. If the high end estimates are accurate, it is difficult to imagine a school district in which 2 to 2.5 times a principal's salary is not a significant amount of money.

The Center for Economic Policy Research provided a "turnover calculator" to help employers estimate the cost of turnover (available at [http://www.cepr.net/calculators/turnover\\_calc.html](http://www.cepr.net/calculators/turnover_calc.html); Center for Economic and Policy Research, n.d.). Using wage averages and other value estimates from a mid-size Midwestern school district, the resulting calculation reveals an estimated cost of turnover of \$46,421 per principal. That cost is approximately 50% of the leaver's salary in the referent school district.

### Intangible Costs

Not all costs are financial in nature, some are more intangible. A principal who has served the same school for many years would take considerable “corporate knowledge” and other valuable historical insight with him/her when he/she leaves that position. In fact, Cascio (1982) expanded on the three categories of turnover costs established by Smith and Watkins (1978) by adding a third category; learning curve loss. Sorensen (1995) attempted to quantify this intangible cost. He estimated that it takes at least five months for an employee to reach full productivity. Given the four to five years it takes to implement change and lasting improvements, five months may be a considerable under-estimate for the profession of principal. Benner (2000) recommended including losses in student achievement as an intangible cost of turnover; the true costs of turnover are considerable.

In order to deal with resistance from employees with more tenure in the organization, Gouldner (1952) found that new managers tended to create more rules and procedures. In addition, as Staw (1980) stated, “the higher the level of the position to be filled the greater is the potential for disruption” (p. 256).

### Principal Shortages

In addition to the disruption and costs associated with principal turnover, districts also face challenges as basic as finding a replacement. While the tangible and intangible costs of turnover are significant, perhaps more significant is the practical difficulty schools face in filling a principalship. For more than a decade, research has indicated that there is a shortage of qualified school administrators (American Association for Employment in Education, 2008; Fink & Brayman, 2006; Grubb & Flessa, 2006; Illinois State Board of Education Research Division, 2000; Pounder & Merrill, 2001; Sherman, 2005). The reasons for the shortages are multi-faceted, including an aging population of principals nearing retirement age, a shortage of candidates, unqualified candidates, and a

trend of teachers obtaining administrative certification but choosing not to become an administrator.

### Aging/Retirements

One of the current position statements of the Board of the National Association of Secondary School Principals (NASSP), first adopted July 11, 2002, states that, “it is estimated that in the next decade 40 percent of today’s principals will retire,” and that those principals who retire are “not being replaced by enough qualified candidates” (National Association of Secondary School Principals, 2011, Issue section, para. 1). The National Association of Elementary School Principals (NAESP) has found that there is a, “growing shortage of elementary school principals. The attrition rate now stands at 42% for the decade from 1988 to 1998, and is expected to remain at least as high into the next decade. Indeed, it could reach as high as 60% as principals of the 'baby boom' generation reach retirement age” (Ferrandino, 2001, The Principal Shortage section, para. 1). In fact, in 2004 NAESP estimated that 66% of principals who responded to their survey had plans to retire between 2002 and 2012 (National Association of Elementary School Principals, n.d.). The 2002 digest of the National Center for Education Statistics stated that by the mid-1990’s, 75% of all principals were age 45 and older (National Center for Education Statistics, 2002). Principals who were 45 and older in the mid-1990’s would now be of retirement age.

Researchers have estimated that by 2010, 40% of principals would retire or leave the profession while, at the same time, the need for administrators would rise by 20% (Educational Research Service, 1998; Gilman & Lanman-Givens, 2001; Gross, 2006). More recently, Gajda and Militello (2008) found that 63% of principals plan to leave the profession within the next five years, many of those due to retirement (70%). The researchers noted that this rate of attrition from the profession is significantly higher than what the profession has experienced in previous years.

### Shortage of Candidates

"Headline after headline, and study after study, have proclaimed that the nation faces an acute shortage of candidates for the principalship that almost certainly will worsen unless we find ways ... to prepare many more to enter a dwindling job pool" (The Wallace Foundation, 2003, p. 1). Researchers have been warning for some time that there is, and will continue to be, a shortage of candidates for the principalship (American Association for Employment in Education, 2008; Boris-Schacter, 2007; Educational Research Service, 1998; Fink & Brayman, 2006; Gajda & Militello, 2008; Grubb & Flessa, 2006; Illinois State Board of Education Research Division, 2000; Johnson, 2005; National Association of Secondary School Principals, 2011; Pounder & Merrill, 2001; Protheroe, 2001; Sherman, 2005).

This shortage of principals has been described as, "reaching crisis proportion" (Quinn, 2002, p. 24). The U.S. Bureau of Labor predicted that there would be a 10% increase in the number of principal openings between 2004 and 2010 (Bucceri, 2006). A 2008 report by the American Association for Employment in Education researched educator supply and demand throughout the United States. That report classified demand into the categories of "considerable surplus," "some surplus," "balanced," "some shortage," and, "considerable shortage." The principalship at the elementary, middle school, and high school levels all fell into the "some shortage" category. "Considering there are roughly 93,000 principalships nationwide, the vacancy rate in the United States could soar exponentially" (Lovely, 2004, p. 1).

Regional research supports the same conclusion. California, Colorado, Connecticut, Massachusetts, Nevada, and Vermont, are all facing shortages of principals (Bell, 2001; Hinton & Kastner, 2000; Kennedy, 2001; Learning Innovations at WestEd, 2001).



### Unqualified Candidates

While some researchers report a decrease in both the quantity and quality of candidates for principalships (Cushing, Kerrins, & Johnstone, 2003), others report that there is an abundance of candidates. The problem is that those candidates are not qualified to assume the role of principal (Haar & Robicheau, 2007; Whitaker, 2001).

Nationwide, there is a shortage of qualified candidates for an increasing number of principal vacancies (Crenson, 2000; Cusick, 2003; National Association of Elementary School Principals, n.d.; National Association of State Boards of Education, 2004). In Colorado, 75 percent of administrators report there is a shortage of qualified candidates for vacant principalships, and 90 percent report they anticipate seeing even fewer qualified candidates in coming years (Lamke, 2002). Researchers studying Connecticut also report shortages of qualified candidates (Noor, 2008).

### Certified but not Applying

In a study of teachers who hold principal certification, researchers found that fewer than half were actually willing to consider working as a principal (Cusick, 2003). In July 2001, the Los Angeles Times reported that, although California was producing 2,000 to 3,500 newly licensed administrators each year, only 38% actually were hired for school administrator positions in California (Orozco & Oliver, 2001). Lovely (2004) found that approximately 66% of California teachers with principal certification chose not to pursue principal vacancies in 2001. While teachers continue to pursue degrees in administration, many continue to choose not to enter the profession (Rayfield & Diamantes, 2003).

Many researchers have hypotheses as to why teachers with principal credentials are choosing not to enter the profession:

- "Teachers forgo jobs in administration because of the growing amount of responsibility, aggravation and stress that comes with the job" (McKay, 1999, p. 31).
- "Veteran teachers who once might have seen leading a school as their ultimate goal now question why they should step into high-pressure roles and work a longer year for a salary not much greater than a classroom teacher's" (Bell, 2001, p. 8).
- "Principals are increasingly realizing that on a per diem basis they might actually earn less than their teachers" (Whitaker, 2003, p. 48).

### Principal Retention

"The shortage of applicants makes retention of existing school leaders even more important" (Whitaker, 2003, p. 45). Potter (2001) suggested that the education community must find ways to keep good principals. Groff (2001) suggested that, despite extensive educational improvement efforts, not enough attention has been given to retaining school administrators. The Chicago Panel on School Policy (n.d.) agreed; more specifically, "While much attention has been centered on the shortage of teachers ... less has focused on the problem that exists at the school leadership level. Seasoned principals are leaving the education system in record numbers" (p.27). Lovely (2004) asserted that school districts might be able to implement changes that would increase the likelihood of principals remaining in positions, and thereby increase stability in the school and decrease turnover costs.

### Organizational Commitment and Principal Retention

By focusing on constructs related to turnover, researchers can help school districts decrease turnover of principals, and all of the associated negative results of such turnover. While it is difficult to measure turnover while there is still time to prevent it, there are constructs that have been shown to be highly correlated with turnover. One such

construct is organizational commitment. Organizational commitment is highly correlated with turnover intentions and actual turnover, and is, therefore, often used as a surrogate for both. The advantage of measuring organizational commitment rather than actual turnover is apparent. It could potentially allow employers to identify employees in need of support prior to those employees leaving the organization.

### Positive Outcomes of Organizational Commitment in Principals

Once a qualified candidate is hired for a principalship, that individual will likely be an important figure in the school, and in the community at large. As a high-profile individual, it is important for a principal to be seen as one who is committed to the school and district. Researchers have found that employees who are not committed to the organization are likely to be committed elsewhere (e.g., hobbies, clubs, family, unions, etc.; Becker, 1992; Meyer & Allen, 1997; Reichers, 1985). This suggestion is significant for schools. A principal who may be more dedicated to a hobby or outside club than he/she is to the school will likely be looked on unfavorably by district stakeholders. Lincoln and Kalleberg (1996) argued that “the committed employee’s involvement in the organization takes on moral overtones, and his stake extends beyond the satisfaction of merely personal interest in employment, income, and intrinsically rewarding work” (p. 22).

Research supports many positive outcomes from employees with high levels of organizational commitment, including decreased turnover, decreased absenteeism, increased job performance, and decreased stress (Mathieu & Zajac, 1990; Meyer & Allen, 1987; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Mowday, 1998; Mowday et al., 1982; Reichers, 1985; Reyes, 1990; Tett & Meyer, 1993). A meta-analysis conducted by Meyer et al. (2002) supported all of the previous outcomes, as well as decreased withdrawal cognition and decreased work-family conflict. All of these

outcomes are significant and encouraging, given the focus of this study, and will be further described elsewhere in this study.

Organizational commitment at its most basic level is similar to loyalty, and it is related to one's intent to stay in one's current position (Mowday, Steers, & Porter, 1979). Organizational commitment is also related to job satisfaction, but it is distinct and is much less transient (Brooke, Russell, & Price, 1988; Mowday et al., 1982; Mowday et al., 1979; Porter, Steers, Mowday, & Boulian, 1974). Job satisfaction may be considered less stable and enduring than organizational commitment.

### Theoretical Framework

It is important for researchers and practitioners to understand variables that may affect organizational commitment. Some potential variables that may impact organizational commitment include psychological empowerment, job autonomy, and distributive justice. These constructs will be described further in Chapter 2. A brief description of each follows.

Psychological empowerment is the feeling of having control over one's destiny (Spreitzer, 1992). Four dimensions of psychological empowerment suggested by Spreitzer (1995) include meaning, competence (or self-efficacy), self-determination, and impact. For principals, feelings of psychological empowerment may emerge from the altruistic motivations of educating children, sufficient background and training in education and educational leadership, and a feeling of confidence in one's ability to make a difference, as well as many other areas.

Job autonomy is the discretion one has to make decisions about one's job (Breugh, 1985). There are three facets of job autonomy. They include the method of doing work, how work is scheduled, and the criteria used for evaluation of performance (Breugh, 1985). In principals, for instance, feelings of job autonomy may be influenced by the relationship with the superintendent, the involvement and relevant power of parent

groups, Board and district policies restricting or enabling principal-created initiatives, and administrator evaluation practices.

Distributive justice refers to the perception of fair distribution of tangible rewards, such as pay, vacation, awards, etc. (Greenberg, 1990). The concept is based on Adams' (1963) equity theory, where an individual compares the ratio of work outcomes (i.e., pay, vacation, etc.) to work inputs (i.e., time spent working, dedication to work, etc.) to the corresponding ratio that individual perceives in others. The individual with the higher perceived ratio is theorized to be over-rewarded (and therefore have potential feelings of guilt) and the individual with the lower perceived ratio is theorized to be under-rewarded (and therefore have potential feelings of anger). Ideally, the ratios, based on perception and not necessarily reality, will be equal and lead to mutual feelings of distributive justice.

Work inputs and outcomes for principals may vary considerably from district to district or between grade levels of responsibility, affecting their perceptions of distributive justice. For instance, the responsibilities of an elementary principal vary from those of a secondary principal. The outcomes of these positions should vary correspondingly. A secondary principal, for instance, who puts in many hours conducting and supervising evening activities, may expect to be paid more than an elementary principal who does not have such responsibilities (see Kmetz & Willower, 1982, for a comparison of the average time elementary principals spend outside the regular day [9 hours per week] versus their secondary colleagues [16 hours per week]). If the varying inputs of those positions, such as time spent working, do not affect the corresponding outcomes, such as salary, then principals in that situation may show lower perceived ratios in terms of distributive justice. Another example involves salary schedules. While most districts have objective salary schedules for teachers, many districts do not have the same structure for administrators. Districts in which salaries are determined by the superintendent with an appearance (whether or not accurate) of subjectivity may award

salaries that are not commensurate with work inputs; thereby resulting in administrators with lower perceived ratios in terms of distributive justice.

### Purpose of the Study

The purpose of this study is to examine the effects of psychological empowerment, job autonomy, and distributive justice on the organizational commitment of school principals. By drawing upon existing research, the researcher developed a model to show the anticipated relationships. This study inquired into the strength of relationships in this particular domain, focusing on school principals. There is an effort to determine if findings from previous research generalize to this domain.

Relatively few studies have considered organizational commitment as a dependent variable (Mathieu & Zajac, 1990). Minimal research on organizational commitment has focused on principals. A search of first-tier educational administration journals in ERIC via ProQuest, using the search term *pub.Exact("Educational Administration Quarterly") OR pub.Exact("Journal of School Leadership") OR pub.Exact("Journal of Educational Administration") OR pub.Exact("Journal of School Leadership") OR pub.Exact("Journal of Research on Leadership Education") AND (cabs("organizational commitment"))*, yielded only 20 results, 19 of which were about organizational commitment in teachers. The only article related to organizational commitment in principals was focused solely on principals late in their careers (Oplatka, 2010).

### Research Questions

The following seven research questions guided this study. They will be framed as hypotheses in Chapter 2.

Research Question 1: Will higher levels of job autonomy be associated with higher levels of organizational commitment?

Research Question 2: Will higher levels of psychological empowerment be associated with higher levels of organizational commitment?

Research Question 3: Will higher levels of distributive justice be associated with higher levels of organizational commitment?

Research Question 4: Will the relationship between job autonomy and organizational commitment be influenced by distributive justice?

Research Question 5: Will the relationship between psychological empowerment and organizational commitment be influenced by distributive justice?

Research Question 6: Will the relationship between job autonomy and organizational commitment be influenced by demographic variables such as age, gender, education level, and tenure?

Research Question 7: Will the relationship between psychological empowerment and organizational commitment be influenced by demographic variables such as age, gender, education level, and tenure?

### Definition of Terms

In order to remain consistent and provide the reader with clarity, the following definitions of key terms will be used throughout this study. Further explanation of the definitions chosen will be provided in Chapter 2.

Organizational commitment refers to the strength of one's identification with and involvement in a particular organization. "It can be characterized by at least three related factors: (1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization" (Mowday et al., 1979, p. 226).

Job autonomy refers to the discretion with which one can choose the methods and procedures to complete work, can choose the scheduling and sequencing of work

activities, and can choose the criteria by which one's work is evaluated (Breugh, 1985; Hackman & Oldham, 1975).

Psychological empowerment refers to "a motivational construct manifested in four cognitions: meaning, competence, self-determination, and impact" (Spreitzer, 1995, p. 1444). It should also be noted that psychological empowerment, as used in this study, is not a concept that is generalizable to other areas of a subject's life, it is very much based on a subject's current work situation (Spreitzer, 1995).

Distributive justice refers to one's feelings of fairness in how work outcomes are distributed relative to work inputs (Greenberg, 1990). It is based on one's perception of rewards received relative to work done in comparison to comparable information about others.

### Study Context

This study focuses on K-12 school principals in the Midwest United States. It includes both public, private/parochial, and charter school principals, both elementary and secondary principals, and principals from districts of widely varying sizes. It is also significant to the context of this study in that it is taking place during a time when principals are being held more accountable than at any other time in U.S. history (Bottoms & O'Neill, 2001; National Association of Secondary School Principals, 2011).

The accountability pressures felt by most educators can be traced back to the 1983 report by the National Commission on Excellence in Education, *A Nation at Risk*. Since the release of this report, there has been no shortage of attention placed on schools. Legislation such as *No Child Left Behind* brought formality to the accountability pressures, and such legislation has led to educator feelings of disempowerment (Galen, 2005).



### Limitations of the Study

There are several potential limitations to this study. The first limitation is that the results of the study may not be generalizable to other countries and cultures, or even other areas of the United States. The Midwest tends to have different cultural characteristics than other areas of the United States, and significantly different cultural characteristics than other parts of the world (Rugh, 2001). Therefore, the results of this study may not generalize to those other areas.

Another potential limitation is that the survey was conducted electronically via email and the internet. While all principals were contacted using their school email address, and all schools are likely to have access to the internet, there are several areas that may affect responses. First, some schools may have had an internet filter that prevented access to the survey or an email filter that prevented delivery of the invitation email. Second, principals tend to be extremely busy and may not have been able to take the time to respond to a survey. Most significantly, their lack of time may be related to one of the variables of interest. For instance, working excessive hours without commensurate increases in pay could lead to feelings of decreased distributive justice.

On average, principals spend 57.3 hours per week on the job (Battle & Gruber, 2009). Because of this, it is quite possible that many principals simply couldn't afford to take the time, however brief, to complete this survey.

Principals may have been capable of responding to this survey but may have felt it was not appropriate, another limitation to this study. Principals' feeling of whether it is appropriate to respond to a survey such as this may be related to the variables of interest. For instance, principals who feel little job autonomy may not feel they can independently choose to respond to this survey.

Finally, this study uses data previously collected by an educational institution for their own internal research project. This secondary analysis precludes the researcher from customizing the survey or conducting any follow-up investigations due to the

anonymized, pre-collected data. For instance, the researchers who originally constructed the survey upon which this study is based chose to only include the items covering the method and scheduling factors of job autonomy. It is unknown why the items related to the criteria autonomy factor were not included. This could be a limitation of the study, and is discussed further in Chapter 3.

## CHAPTER II: THEORETICAL FRAMEWORK AND LITERATURE REVIEW

This chapter will begin with a review of the literature related to organizational commitment, and by exploring its antecedents and outcomes. Next the constructs of job autonomy, psychological empowerment, and distributive justice will be explored and reviewed in a similar fashion. Demographic variables relevant to the study will then be discussed. Finally, the hypotheses developed throughout the chapter will be summarized.

### Organizational Commitment

Organizational commitment is an important variable in organizational theory because of the strong connections that have been established in several decades of research (Mathieu & Zajac, 1990). As mentioned previously, organizational commitment is a more stable variable than job satisfaction (Perryer & Jordan, 2005); the former is more like seasons and the latter more like the daily weather. Employees who are committed to the organization are likely to perform better, work harder and more efficiently, and stay in their jobs (Mowday, 1998; Mowday et al., 1982). In these challenging economic times, when organizations must attempt to do more with less, it is in an organization's best interest to hold on to valuable employees and increasing organizational commitment is one means to that end. Some have even suggested that organizational commitment may be an indicator of the effectiveness of an organization (Angle & Perry, 1981; Lincoln & Kalleberg, 1990; Randall, 1990; Steers, 1977).

Porter et al. (1974) defined organizational commitment in terms of the relative strength of one's identification and involvement with a particular organization. They suggested three factors made up this commitment. First, one has to have a strong belief in the values of the organization. Second, one has to be willing to exert effort on behalf of the organization. Third, one has to have a strong desire to maintain membership in the organization.

In the late 1980's there was a proliferation of research on organizational commitment, and with that proliferation came many different definitions, measures, and foci (Dunham, Grube, & Castaneda, 1994; Ko, 1996; Ko, Price, & Mueller, 1997; Mathieu & Zajac, 1990; McGee & Ford, 1987; Morrow, 1993; Shore & Wayne, 1993). In addition to the definition above (Porter et al., 1974), a definition defined as attitudinal commitment, researchers in this period generally recognized another type of commitment; namely, calculative commitment. Calculative commitment was based on Becker's (1960) concept of side bets and sunk costs that individuals may have in the organization in which they work. These side bets and sunk costs include items individuals may lose if they were to leave the organization, such as retirement funds, banked sick leave, and friendships.

Steers (1977) hypothesized a two-part model involving the antecedents and consequences of organizational commitment. He suggested that the antecedents could be grouped into three categories: personal characteristics, job characteristics, and work experiences. Personal characteristics affecting organizational commitment include age and education. Job characteristics affecting organizational commitment include job challenge and amount of feedback provided on the job. Work experiences affecting organizational commitment include group attitudes toward the organization, and organizational dependability and trust.

Many decades later, Mathieu and Zajac (1990) conducted an extensive meta-analysis of the antecedents, correlates, and consequences of organizational commitment, and categorized the antecedents in the same way with the addition of role states and group-leader relations.

Mathieu and Zajac (1990) found significant correlations with many antecedents of organizational commitment. Personal characteristics found to be significant include age, sex, education, organizational tenure, perceived personal competence, protestant work ethic, and job level. Job characteristics found to be significant include task autonomy and

challenge. Characteristics of group-leader relations found to be significant include group cohesiveness, leader initiating structure, and leader consideration. Organizational characteristics found to be significant include organizational size and organizational centralization. Finally, role states found to be significant include role ambiguity, role conflict, and role overload.

Significant correlates of organizational commitment found in the Mathieu and Zajac (1990) meta-analysis include motivation, job involvement, stress, occupational commitment, and union commitment. They also found significant correlations with correlates related to job satisfaction, including overall job satisfaction, supervision, coworkers, promotion, pay, and the work itself.

The consequences of organizational commitment found to be significant in the Mathieu and Zajac (1990) meta-analysis include others' ratings of job performance, perceived job alternatives, intention to search, intention to leave, and turnover. These consequences, as well as previously mentioned antecedents and correlates, will be explored further in upcoming sections of this study.

In response to the proliferation of definitions and measures in the late 1980's, Meyer and Allen (1991) proposed a model of commitment that would assist in the interpretation of existing research while also serving as a framework for future research. Their model sought to expand on the attitudinal definition of commitment to include the concept that one may have a desire, a need, or an obligation to remain in an organization. These three concepts formed the basis of their three-component model. The three components included affective commitment, normative commitment, and continuance commitment. Affective commitment refers to an individual's *desire* to be part of the organization. Normative commitment refers to an individual's *obligation* to be part of the organization. Continuance commitment refers to an individual's *need* to be part of the organization. Meyer and Allen (1997) emphasize that these three facets should be considered together and not as types of commitment.

Affective commitment refers to an employee's emotional attachment to an organization. The employee remains with the organization because he/she *wants* to remain. Employees may feel emotional attachment to an organization because it is a good fit for their personality and values, or because they feel competent in their work role.

Normative commitment refers to an employee's feeling of obligation to remain with an organization. The employee remains with the organization because he/she feels he/she *ought* to remain. The reasons employees may feel this way are widely varied, but may include being socialized within the organization or having received advance rewards, such as tuition payments.

Continuance commitment refers to an employee's understanding of the costs associated with leaving an organization. The employee remains with the organization because he/she *needs* to. Like calculative commitment, described above, continuance commitment is based on Becker's (1960) side-bet theory. Individuals who leave an organization often have much to lose, including retirement funds, accumulated sick leave, and friendships. The longer an individual is with an organization the more likely he/she is to have these "sunk costs."

#### Antecedents

Researchers have found strong support for demographic variables, such as age, gender, level of education, and tenure in the organization, as antecedents to organizational commitment (Glisson & Durick, 1988; Hrebiniak & Alutto, 1972; Mathieu & Zajac, 1990; Morrow & Goetz Jr, 1988; Mowday et al., 1982; Mowday et al., 1979; Porter et al., 1974; Sheldon, 1971; Steers, 1977; Tett & Meyer, 1993). These findings suggest that organizational commitment increases as age and/or tenure in the organization increases, and that organizational commitment decreases as education increases. Researchers have also found that women tend to be more committed than men (Grusky, 1966; Hrebiniak & Alutto, 1972; Mathieu & Zajac, 1990), although results are mixed

(Angle & Perry, 1981; Bruning & Snyder, 1983). Other findings include increases in organizational commitment as competence and/or job level increase, and decreases in organizational commitment as organization size increases (Mathieu & Zajac, 1990).

Other antecedents are not related to demographics. Meyer et al. (2002) and Park (2007) found strong positive correlations between organizational characteristics, like perceived organizational support, and affective commitment. Support for variables related to work experience includes findings that job security and autonomy both positively impact organizational commitment. As stated by Staw (1982), “commitment is built by actions in which one is responsible for large consequences” (p. 103). “Employees become committed to the organization when they have responsibility for consequential activity” (Dee, Henkin, & Singleton, 2006).

In school settings, the focus of this study, researchers have found support for organizational commitment from variables such as years of experience, level of education, and receipt of support (Reyes, 1990; Riehl & Sipple, 1996; Rosenholtz & Simpson, 1990; Shaw & Reyes, 1992). Another potential antecedent, which is quite relevant given some of the massive down-sizing initiatives in schools recently (see Kansas City Public Schools and District of Columbia Public Schools), is the idea advanced by Baruch (1998) that an organization’s commitment to employees is a critical antecedent to an employee’s commitment to the organization.

Antecedents that are a focus of this study—job autonomy, psychological empowerment, and distributive justice—will be discussed in the related sections to follow.

### Outcomes

Organizational commitment is being considered as the dependent variable in this study because research supports strong outcomes related to this construct. As discussed previously, replacing principals can be quite detrimental to schools, as well as being

difficult, time consuming, and expensive. Consequently, outcomes such as increased retention, decreased turnover intentions and decreased actual turnover are important. While findings of improved performance are not consistent (Mathieu & Zajac, 1990; Meyer et al., 2002), that is not as critical in elementary and secondary schools where the process is the product and the means are the ends. As suggested by Steers (1977), one of the most important outcomes resulting from increases in organizational commitment is a more stable work force.

In school settings, other outcomes of interest include climates that are conducive to learning (Dannetta, 2002; Ebmeier, 2003) and increased expectations for student success and achievement (Kushman, 1992). Supervisor-subordinate relationships are also enhanced, which is important given the critical nature of the teacher-principal relationship (Reichers, 1985). Principals tend to be extremely busy individuals, so it is important to understand that increased organizational commitment has been associated with workers who work harder and more efficiently (Mowday, 1998; Mowday et al., 1982). If one accepts that students and parents are the customer for the product of education that principals oversee, then it would also be expected that increased organizational commitment would be related to better relationships with students and parents (Mowday, 1998).

One of the most critical reasons for school districts to increase organizational commitment in principals is its relationship to turnover. As discussed in Chapter 1, losing a principal can have many negative effects on a school and a district. Thus, intention to leave a position and actual turnover are perhaps the most critical outcomes of organizational commitment in relation to this study. Mowday et al. (1982) stated, "it is our belief that the strongest or most predictable behavioral outcome of employee commitment should be reduced turnover" (p.38). In their meta-analysis, Tett and Meyer (1993) found that organizational commitment had a correlation of -0.54 with intention to leave. They also found that organizational commitment was the second strongest



predictor (-0.33) of actual turnover, after the strongest predictor, intention to leave (0.45). The meta-analysis by Mathieu and Zajac (1990) found organizational commitment was highly correlated to intention to search for job alternatives (-0.599), and intention to leave one's job (-0.464). Although a slightly weaker correlation, organizational commitment also correlated with actual turnover (-0.28).

Research supporting the relationship between organizational commitment and turnover is extensive (Bluedorn, 1982a, 1982b; DeCotiis & Summers, 1987; Hom & Griffeth, 1995; Hoy & Miskel, 2001; Jaros, 1997; Kalleberg & Berg, 1987; Kraut, 1970; Lee, Ashford, Walsh, & Mowday, 1992; Mathieu & Zajac, 1990; Mowday et al., 1982; Mueller, Wallace, & Price, 1992; Norris & Niebuhr, 1983; Porter et al., 1974; Price & Mueller, 1986; Randall, 1990; Reyes, 1990; Somers, 1995; Steers, 1977; Thompson, McNamara, & Hoyle, 1997). Employees with high organizational commitment desire to remain a part of the organization (Gaan, 2008; Meyer, Allen, & Smith, 1993; Thompson, Andreassi, & Prottas, 2005) and are not likely to leave (Allen & Meyer, 1996; Clugston, Howell, & Dorfman, 2000; Griffeth, Hom, & Gaertner, 2000; Khatri, Fern, & Budhwar, 2001; Meyer & Allen, 1997). Gautam, van Dick, and Wagner (2001) found that commitment is a strong predictor of both search intentions and turnover intentions.

Results regarding the relationship between organizational commitment and performance have been mixed. Some researchers have found a positive correlation between organizational commitment and performance (Becker, Billings, Eveleth, & Gilbert, 1996; Kalleberg & Marsden, 1995; Zahra, 1984), while others have not (Mowday et al., 1979).

Researchers have also found that high levels of organizational commitment are associated with low levels of absenteeism (Cohen, 1993; Mowday et al., 1979; Zahra, 1984). Some have found this to be a weak relationship (Somers, 1995).

Begley and Czajka (1993) found that organizational commitment had a moderating effect on the impact of stress. When organizational commitment was low,

individuals felt increased job displeasure due to stress, but when organizational commitment was high, individuals felt less effects due to stress.

Several researchers have examined the relationship between organizational commitment and organizational effectiveness, through organizational citizenship behaviors (OCB; Bateman & Organ, 1983; Brief & Motowidlo, 1986; O'Reilly & Chatman, 1986; Organ, 1988; Price & Mueller, 1986; Randall, Fedor, & Longenecker, 1990; Shore & Wayne, 1993; Smith, Organ, & Near, 1983). Organ (1988) defines OCB as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the effective functioning of the organization" (p.4). Some examples of such behaviors include suggesting organizational improvements, assisting colleagues, and putting forth extra effort on the job (Brief & Motowidlo, 1986).

As mentioned previously, these OCBs ultimately improve organizational effectiveness. Price (1997) refers to organizational effectiveness as the degree to which the organization achieves its goals. Researchers have found a link between organizational commitment and organizational effectiveness, in that organizational commitment decreases absenteeism, decreases turnover, and increases OCBs (Angle & Perry, 1981; Lincoln & Kalleberg, 1990; Randall, 1990).

### Job Autonomy

At its most basic level, job autonomy refers to the discretion with which employees can carry out their job responsibilities. Breaugh and Becker (1987) asserted that job autonomy may be the most important characteristic of a job's design. Turner and Lawrence (1965) defined it as "the discretion the worker is expected to exercise ... in carrying out the assigned task" (p. 21). Hackman and Oldham (1975) built upon that definition, defining autonomy as "the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in

determining the procedures to be used in carrying it out" (p. 162). Turner and Lawrence (1965) and Hackman and Oldham (1975), as well as other researchers in the 1970s and 1980s, mostly focused on autonomy as a global concept rather than one with multiple facets. Researchers in that period relied upon the Job Diagnostic Survey (JDS; Hackman & Oldham, 1975) and the Job Characteristic Inventory (JCI; Sims, Szilagyi, & Keller, 1976); both of which measure global autonomy.

While specifics regarding the construction of job autonomy have changed slightly over the years, the underlying concept of job autonomy, the discretion with which one can choose the methods and scheduling of one's work, has remained consistent.

In their early work on job autonomy, Hackman and Oldham (1980) looked at job autonomy in terms of the independence and discretion that individuals had in deciding how and when to do their work. They discussed two dimensions in job autonomy: control over the content of work and control over the terms of work.

Breaugh (1985, 1989) and Breaugh and Becker (1987) expanded on Hackman and Oldham's (1980) conception of job autonomy being a two dimensional construct by adding a third dimension, autonomy regarding evaluation criteria. The first dimension, method autonomy, is based on Hackman and Oldham's control over the content of work, and includes control over the processes and procedures used to do work. The second dimension, scheduling autonomy, is based on Hackman and Oldham's control over the terms of work, and includes the ability to choose when and for how long to do work. The third dimension, criteria autonomy, added by Breaugh, includes the ability of employees to determine the criteria and standards by which their work will be evaluated.

Strong support for the first two dimensions has been found while support for the third dimension has been mixed (Brady, Judd, & Javian, 1990). Abbott (1988) held that control over tasks was vital for professionals, but he did not focus on the pacing or scheduling of those tasks. Halaby and Weakliem (1989) emphasized that employee

choice and discretion in both the substantive and the procedural aspects of work is required for those employees to experience job autonomy.

It is important to note that job autonomy is measured based on the individual's perception of autonomy rather than autonomy effecting controls. For instance, if one was to study the actual aspects that affected job autonomy, such as expectations of the profession, an individual's place in the organizational hierarchy, etc., it would be very difficult to parse out these sources. Instead, the research has focused on the perception of the autonomy provided by those and other controls. This focus is appropriate because it is the perception of autonomy that will impact an individual's behavior (Breugh & Becker, 1987; Hackman & Oldham, 1980).

Job autonomy can be studied at different levels of analysis. For instance, Simpson (1985) explains that job autonomy can be analyzed at the individual, occupational, and organizational level. Analysis at the individual level, the focus of this study, is described above. Analysis at the occupational level would require occupational groups to self-regulate their members and to defend their influence over tasks (Abbott, 1988; Freidson, 1970). Analysis at the organizational level would require organizations to direct, evaluate, and discipline workers via various control systems (Edwards, 1979).

Job autonomy is important because it delves to the very dignity of the workers. Hodson (2001) emphasizes that, "without some minimum of control, without dignity, work becomes unbearable" (p.4). Greenhaus and Callanan (1994) hold that, "having substantial freedom to select work projects, to decide how a job gets accomplished, and to set work schedules are crucial to a large number of employees in today's world" (p.11). Even at the occupational level of analysis, Freidson (1970) suggested that having meaningful control over the core work responsibilities is a defining aspect of a profession.

### Antecedents

Researchers have found strong support for demographic variables, such as age, gender, level of education, and tenure in the organization, as antecedents to job autonomy (Adler, 1993; Boreham, 1991; Durham, Morgan, Larcom, & Chase-Dunn, 1981; Fenwick & Jon, 1986; Jaffee, 1989; Kalleberg & Buren, 1996; Kalleberg & Leicht, 1986; le Grand, Szulkin, & Tåhlin, 1994; Reskin, 1993; Ross & Reskin, 1992; Singelmann & Mecken, 1992). These findings suggest that job autonomy increases as education level, years on the job, and/or age increase. However, some studies have found no effect related to age (Jaffee, 1989; Kalleberg & Leicht, 1986) and years on the job (Boreham, 1991; Jaffee, 1989). Researchers have found that race does not play a role in autonomy (Farley, 1997; Smith, 2002), and that men feel more autonomy than women (likely due to differences in authority accorded to their position; Adler, 1993; le Grand et al., 1994; Reskin, 1993; Ross & Reskin, 1992; Singelmann & Mecken, 1992).

Keenan (1999) suggested several antecedents to autonomy, including experience, education, ability to prioritize, ability to discriminate, self-discipline, and acceptance of responsibility. The final item is important because those who are able to act autonomously will likely be held more accountable for their actions (Maas & Jacox, 1977, as cited in Keenan, 1999).

### Outcomes

Cummings and Molloy (1977) found the most frequently changed of all variables was "the degree of autonomy or discretion that employees have over their work" (p. 6). One outcome of job autonomy of particular interest to this study is its relationship to organizational commitment. Many researchers have found that increases in job autonomy are associated with increases in organizational commitment (Bono & Judge, 2003; Kemp, Wall, Clegg, & Cordery, 1983; Parker, Wall, & Cordery, 2001). In his meta-analysis of job autonomy, Spector (1986) found that job autonomy was a predictor of organizational

commitment. A more recent meta-analysis, conducted by Humphrey, Nahrgang, and Morgeson (2007) confirmed this finding.

Halaby and Weakliem (1989) argued that in order to gain an understanding of how organizational commitment is formed in an individual, one must explore job autonomy as an essential factor. Gagne and Deci (2005), citing previous research conducted by Gagne, explained that autonomy and commitment are not only related, but that autonomy leads to commitment. This was determined through a longitudinal research design in which autonomy at the beginning of the study predicted organizational commitment at the end, but not vice versa.

Based on research question 1, and previously described research on the relationship between job autonomy and organizational commitment, the following hypothesis is proposed.

Hypothesis 1: Higher levels of job autonomy will be associated with higher levels of organizational commitment.

Increased job satisfaction is another outcome of job autonomy supported by extensive research (DeCarlo & Agarwal, 1999; Kemp et al., 1983; Loher, Noe, Moeller, & Fitzgerald, 1985; Ross & Reskin, 1992). Several meta-analyses have confirmed this finding (Fried, 1991; Spector, 1986).

Increases in job autonomy have also been shown to be related to decreases in stress (Karasek, 1979; Spector, 1986) and decreases in absenteeism (Spector, 1986). Turnover has also been shown to be related to job autonomy, such that those with higher perceptions of job autonomy are less likely to turnover (Spector, 1986). Morgeson, Delaney-Klinger, and Hemingway (2005) found that job autonomy led to increased performance by enhancing role breadth.

## Empowerment

The construct of empowerment has been approached from two distinct viewpoints; one that is relational, and one that is psychological (Conger & Kanungo, 1988). The relational approach focuses on the relationship between leaders and followers, while the psychological approach focuses on the enabling process.

The relational approach to empowerment focuses on the transfer of power from leaders to followers. In this approach, power is transferred through leaders sharing power with followers, in the form of authority or control over resources (Conger & Kanungo, 1988). This approach gives little attention to any power that the follower might have.

The psychological approach to empowerment focuses on enabling followers, rather than simply delegating or transferring “power” to them (Conger & Kanungo, 1988). Little attention was given to this concept early in its conception, perhaps partially due to the subjectivity of the phenomenon (Dee, Henkin, & Duemer, 2003; Spreitzer, 1992, 1995). The psychological approach focuses on the motivational constructs involved in enhancing personal efficacy (Conger & Kanungo, 1988; Staples, 1990) and enhancing one’s sense of meaning and control (Spreitzer, 1992; Thomas & Velthouse, 1990). Power and control are seen as motivational states that are internal to the individual (Conger & Kanungo, 1988). In the first construct, empowerment is improved by enhancing feelings of self-efficacy. This dimension is often seen as being synonymous with enabling (Staples, 1990). In the second construct, empowerment is improved through increased meaning and control. This second construct consists of four dimensions: meaning, competence, impact, and self-determination (Thomas & Velthouse, 1990). It is important to note that these dimensions have an additive effect on intrinsic motivation and therefore empowerment.

Meaning refers to the fit between an individual’s beliefs and values and his/her work (Spreitzer, 1995; Thomas & Velthouse, 1990).

Competence refers to an individual's feelings of self-efficacy related to work. This dimension is identical to Bandura's (1977) conception of self-efficacy as it related to the initiation and persistence of behavior.

Impact refers to the outcome of the task and the influence one can have on that outcome. Low feelings of impact result in feelings of powerlessness (Ashforth, 1989).

Self-determination refers to the sense of control one has over one's work. It includes the feeling that individuals have choice in their actions, actions emanate from oneself, and individuals are responsible for their action (Deci & Ryan, 1987).

Empowerment is, "a subjective state of mind where an employee perceives that he or she is exercising efficacious control over meaningful work" (Potterfield, 1999, p.51). Empowerment cannot be generalized to different life situations. It is specific to the work domain in which it is measured (Spreitzer, 1995).

#### Antecedents

Dee et al. (2003) found several antecedents to empowerment related to teamwork. They found that team participation positively influenced empowerment (including all sub-dimensions except "competence"), and that the teamwork variable with the strongest impact on empowerment was team teaching. Other antecedents to empowerment include organizational culture (Sparrowe, 1994; Spreitzer, 1992), top level support (Arad & Drasgow, 1994, as cited in Liden, Wayne, & Sparrowe, 2000), and relationships such as those described by leader-member exchange (LMX) theory (Liden, Sparrowe, & Wayne, 1997).

Certain characteristics of jobs also are associated with increased feelings of psychological empowerment. Kraimer, Seibert, and Liden (1999) found that job meaningfulness and task feedback were related to empowerment.



Spreitzer (1992) examined social-structural antecedents of empowerment, including organizational structure, access to sources of system power, and organizational culture.

### Outcomes

Of particular interest to this study, Kirkman and Benson (1999) found that increases in empowerment were related to increases in organizational commitment. Other researchers have had similar findings (Liden et al., 2000; McDermott, Spence Laschinger, & Shamian, 1996). Konczak, Stelly, and Trusty (2000) found that the relationship between leader behaviors and organizational commitment was mediated by psychological empowerment. Nyhan (2000) also found that empowerment of employees leads to increased trust in managers, and that then leads to increased organizational commitment in those employees.

Dee et al. (2003) noted that an employee can build commitment to an organization when they have “responsibility for consequential activity” (p.5), and that empowerment allows that employee to engage in consequential activities. Dee et al. (2003) hypothesized that, “empowerment may provide the conditions necessary to building organizational commitment” (p. 261). Kraimer et al. (1999) found that two dimensions of empowerment, self-determination and impact, accounted for 38% of the variance in organizational commitment.

Based on research question 2, and previously described research on the relationship between psychological empowerment and organizational commitment, the following hypothesis is proposed.

Hypothesis 2: Higher levels of psychological empowerment will be associated with higher levels of organizational commitment.

Other outcomes of empowerment include increased performance, increased job satisfaction, increased motivation, increased satisfaction with pay, increased satisfaction

with promotions, decreased absenteeism, and decreased turnover (Hollander & Offermann, 1990; Klein, Ralls, Smith-Major, & Douglas, 1998; Sparrowe, 1994; Spreitzer, Kizilos, & Nason, 1997). Employees who feel empowered are also more able to concentrate on tasks, are more flexible, and are more resilient (Thomas & Tymon, 1994). Researchers have found that increased empowerment is related to increases in organizational rank and/or tenure (Koberg, Boss, Senjem, & Goodman, 1999).

### Distributive Justice

Organizational justice in its most general sense refers to the fairness with which employees are treated. Organizational justice is rooted in the theoretical work of (Homans, 1961), Adams (1965), and Walster, Berscheid, and Walster (1973). Dimensions of organizational justice include procedural, distributive, and interactional. Early research largely focused on distributive justice, and much research still focuses on procedural and distributive justice, rather than interactional justice (Colquitt, Conlon, Wesson, Porter, & Ng, 2001).

Procedural justice recognizes that individuals often care as much about how rewards are determined as they do about what those rewards are. They want to know that procedures are fair. Leventhal, Karuza, and Fry (1980) suggested six rules by which fairness can be enhanced: consistency, bias suppression, accuracy, correctability, representativeness, and ethicality. Researchers have found that individuals may be tolerant of bad outcomes for themselves as long as they feel the process that arrived at those consequences was fair (Lind & Tyler, 1988).

Distributive justice is focused on personal gain and is based on Adams' (1965) social exchange theory. As Adams explained, individuals tend to look at the fairness of rewards they receive in terms of ratios. When looking at themselves, they expect rewards received to be proportional to the effort they put in to achieving those rewards. When

comparing themselves to others, they expect that ratio to be approximately equal to the ratio of others (Cropanzano & Folger, 1989).

The rewards received may be economic, such as salary, bonuses, time off, etc. The rewards may also be social, such as promises to do a favor in the future (Blau, 1964).

### Outcomes

McFarlin and Sweeney (1992) found a significant correlation (0.49) between distributive justice and organizational commitment. In a hierarchical regression analysis, after controlling for demographic variables (tenure, gender, age, salary, job type), McFarlin and Sweeney found that distributive justice contributed a  $\Delta R^2$  of 0.23 (significant at  $p < 0.001$ ) with organizational commitment as the outcome variable.

Lowe and Vodanovich (1995) found that distributive justice is a good predictor of organizational commitment. After entering control variables and procedural justice in initial steps of a hierarchical regression analysis, distributive justice contributed an additional 16% (significant at  $p < 0.01$ ) to the variance of the outcome variable, organizational commitment. In a parallel analysis, when distributive justice was entered before procedural justice, the contribution of procedural justice was not significant (5%).

Many researchers have found a stronger relationship between distributive justice and organizational commitment than between procedural justice and organizational commitment. Consequently, distributive justice is used in this study (Greenberg, 1994; Lowe & Vodanovich, 1995).

Based on research question 3, and previously described research on the relationship between distributive justice and organizational commitment, the following hypothesis is proposed.

Hypothesis 3: Higher levels of distributive justice will be associated with higher levels of organizational commitment.

Agho, Mueller, and Price (1993) found a significant correlation between distributive justice and job autonomy. Cropanzano and Folger (1989) also discussed the relationship between distributive justice and job autonomy. Yoon and Thye (2002) discuss autonomy as a reward of work; thereby relating it to distributive justice. Based on research question 4, and previously described research on the relationship between distributive justice and job autonomy, the following hypothesis is proposed.

Hypothesis 4: The relationship between job autonomy and organizational commitment will be influenced by distributive justice.

Keller and Dansereau (1995) discussed the fairness of empowerment, in that leaders are able to give and take benefits. They considered the relationship to Adams' (1965) social exchange theory (the theoretical basis for distributive justice). Zapata-Phelan, Colquitt, Scott, and Livingston (2009) explored the influences of justice on intrinsic motivation, and thereby empowerment. Boudrias et al. (2010) found that the effects of empowerment were enhanced when perceptions of organizational justice were higher.

Based on research question 5, and previously described research on the relationship between distributive justice and empowerment, the following hypothesis is proposed.

Hypothesis 5: The relationship between psychological empowerment and organizational commitment will be influenced by distributive justice.

#### Demographic Variables

Given previous research, described above, several demographic variables are included in this study. Age, gender, education level, and tenure were selected as the demographic variables based on previous research. Age was measured using the following categories: 20-29, 30-39, 40-49, 50-59, and 60 or more. Gender was measured as male or female. Education level was measured using the following categories:

Bachelors (B.A., B.S.), Masters (M.A., M.S.), Specialist (Ed.S.), Doctoral (Ed.D., Ph.D.), and Other (please specify). Tenure was measured by asking respondents how many years they have been a principal “at this or other schools/districts” and used the following categories: Less than 1 year, 1 to 3 years, 4 to 9 years, 10 to 19 years, and 20 years or more.

Assuming potential influences of these demographic variables on the variables of interest in this study, and based on research questions 6 and 7, the following hypotheses are proposed.

Hypothesis 6: The relationship between job autonomy and organizational commitment will be influenced by demographic variables: age, gender, education level, and tenure.

Hypothesis 7: The relationship between psychological empowerment and organizational commitment will be influenced by demographic variables: age, gender, education level, and tenure.

### Hypotheses

The following is a summary of the seven hypotheses to be tested in this study.

Hypothesis 1: Higher levels of job autonomy will be associated with higher levels of organizational commitment.

Hypothesis 2: Higher levels of psychological empowerment will be associated with higher levels of organizational commitment.

Hypothesis 3: Higher levels of distributive justice will be associated with higher levels of organizational commitment.

Hypothesis 4: The relationship between job autonomy and organizational commitment will be influenced by distributive justice.

Hypothesis 5: The relationship between psychological empowerment and organizational commitment will be influenced by distributive justice.

Hypothesis 6: The relationship between job autonomy and organizational commitment will be influenced by demographic variables: age, gender, education level, and tenure.

Hypothesis 7: The relationship between psychological empowerment and organizational commitment will be influenced by demographic variables: age, gender, education level, and tenure.

A path model of organizational commitment, relative to the above hypotheses, is presented in Figure 1. Based on this model, analysis will be done on the direct effects of all variables on organizational commitment, as well as the indirect effects of the control variables on organizational commitment through job autonomy and psychological empowerment. Path analysis is discussed further in Chapters 3 and 4.

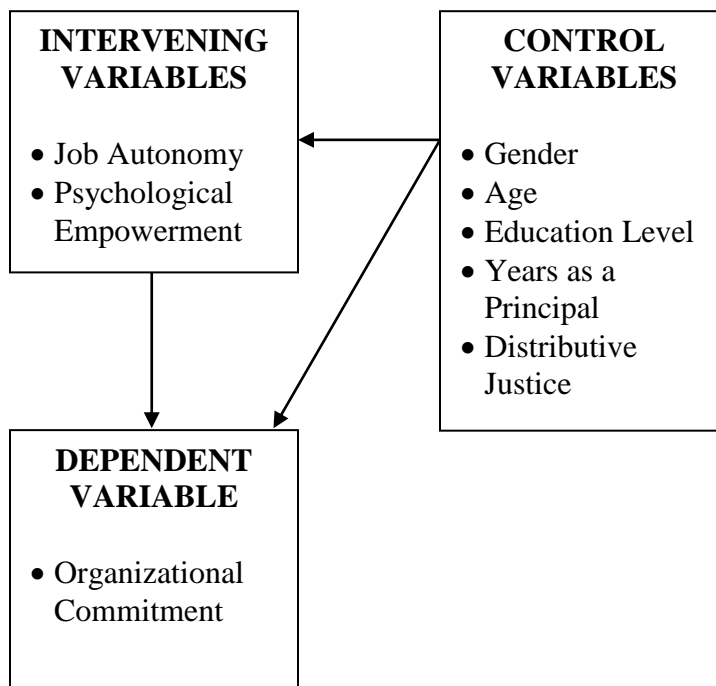


Figure 1. Path model of organizational commitment relative to study hypotheses.

## CHAPTER III: METHODOLOGY

In this chapter, details of methodological procedures used to examine the relationship between organizational commitment and job autonomy, psychological empowerment, distributive justice, and demographic variables are presented. First the study population is delineated. Next the data collection procedures and results are explained. The instruments used to measure each variable are presented, as well as the control variables. Finally, the statistical methodology used will be described.

### Study Population

The initial sample for this survey was obtained from the state-level departments of education for the following states: Iowa, Kansas, Minnesota, Missouri, North Dakota, and Wisconsin. The sample includes elementary and secondary principals from public, private/parochial schools, and charter schools. Several states did not differentiate between superintendents and principals in the email addresses provided. A question is included in the survey allowing the respondent to self-report whether he/she is a superintendent or a principal (if both, the survey requests that he/she responds from the principal's point of view).

### Data Collection

The data were collected by a school district as a part of their own internal research projects. The district used a survey research company to collect responses. The initial sample consisted of a total of 9,767 email addresses. No incentives were used to increase responses, but up to two follow-up emails were sent for those individuals who did not respond. The school district provided the data to this researcher with all individually identifiable information (such as email address, IP address, district name, etc.) removed so as to allow for secondary analysis. Since these data came from individual, living subjects, albeit unidentifiable, the researcher obtained IRB approval in advance of

receiving the data. Data were secured and handled as recommended by Dude, Mengeling, and Welch (2009).

Deutskens, Ruyter, Wetzels, and Oosterveld (2004) found a response rate of between 19.5% and 21.2%, depending on how quickly the follow-up emails were sent (late versus early, respectively). Some researchers, such as Fricker, Galesic, Tourangeau, and Yan (2005), have found higher response rates for web surveys, but they utilized monetary incentives to increase the rate. According to statistics from the survey research company that distributed the survey for this study, of the 9,767 email addresses, 9,178 of the invitations to participate were delivered successfully. Of the 9,178 emails delivered, 3,090 were read. 1,563 surveys were completed, resulting in a response rate of 17%. Of those that read the invitation email or a reminder, 51% responded to the survey.

The initial invitation was sent out on June 16th. Some 711 individuals responded to the initial invitation (523 on the same day the invitation was delivered). Two reminders were used to increase participation. The first reminder was sent on June 22nd to 8,467 email addresses, and resulted in an additional 385 responses (276 on the same day the reminder was delivered). Given the intervening summer, the second reminder was sent on September 14th to 8,082 email addresses and resulted in an additional 467 responses (413 on the same day the reminder was delivered). Of the 1,563 completed surveys, 1,078 self-reported that they were principals (69%). Only the data from principals were analyzed in this study.

### Instruments

Screenshots of the actual survey, including all demographic questions and instruments, are included in the appendix. Screenshots are included, rather than simple text, in order to show for the reader exactly how the information was displayed for respondents. Because this survey was part of a larger research project for the original



research team, the complete survey is included in the appendix, including measures that are not part of the research described here.

In order to provide consistency for the individuals taking the survey, all items involving ratings utilized the same seven-point Likert scale ranging from 1, strongly disagree, to 7, strongly agree. Some items were reverse coded (i.e., used negative wording). The reverse coded items include the following: items 2, 6, and 7 on the organizational commitment measure; items 3 and 4 on the autonomy measure; and, items 3 and 4 on the distributive justice measure.

The measures used were selected based on consistency with the definitions used in this study, their psychometric properties, and their previous history of usage in scholarly research.

### Organizational Commitment

Many different measures of organizational commitment have been used over several decades of research. In their meta-analysis, Mathieu and Zajac (1990) found that out of 174 research studies, 90 used the measure developed by Porter et al. (1974), 13 used the refined version of that measure modified by Mowday et al. (1979), 23 used the measure developed by Hrebiniak and Alutto (1972), and 48 used other measures. Reliabilities of those samples were 0.882, 0.857, 0.881, and 0.787, respectively.

Price (1997) found strong support in the literature for using the measure modified by Mowday et al. (1979), consisting of only the nine positively-worded items from the original Organizational Commitment Questionnaire (OCQ; Porter et al., 1974). In this study, organizational commitment was measured using the modified OCQ. Mowday and colleagues investigated internal consistency of the OCQ and found coefficients alpha ranging from 0.82 to 0.93, with a median value of 0.90 (Cronbach, 1951). They also conducted factor analyses and found support for a single-factor underlying construct. Test-retest reliability was used to examine stability over time. Correlations ranging from

0.53 to 0.75 were found, which is comparable to results from other attitudinal measures. Evidence was also found for convergent, discriminant, and predictive validity, although some of that evidence was only moderately strong. This evidence suggested that this version of the OCQ was appropriate for this study.

### Job Autonomy

In the 1970s, several measures of job autonomy were commonly used. The two most commonly used were the Job Diagnostic Survey (JDS; Hackman & Oldham, 1975) and the Job Characteristic Inventory (JCI; Sims et al., 1976). While these measures were quite popular, later research found psychometric problems with both. Fried (1991) reported poor internal consistency and Taber and Taylor (1990) found unclear factor structures. Breugh (1999) reported that these problems were likely due to the fact that both were trying to measure a multidimensional construct using a global measure.

In 1985, Breugh set out to develop a measure of job autonomy that was free from the issues inherent in the JDS and JCI. With that measure, Breugh found support for internal consistency, with coefficients alpha ranging from 0.77 to 0.92 (Cronbach, 1951). Test-retest reliability coefficients ranged from 0.65 to 0.76, indicating support for stability over time. Support for the three hypothesized factors of job autonomy (method autonomy, scheduling autonomy, and criteria autonomy) was found using factor analysis. This factor analysis was later confirmed by Evans and Fischer (1992). Breugh later found additional support for the internal consistency and stability of the measure, as well as support for validity (Breugh, 1999). He used several types of psychometric data to find support for construct validity, including correlations with other variables with which theory would support an association. Breugh found significant correlations with the Hackman and Oldham (1975) autonomy, satisfaction with work, and satisfaction with supervision scales, the Hall and Lawler (1971) job involvement index, employee absenteeism, and performance rating, and several relevant scales from the Minnesota

Satisfaction Questionnaire. Given the evidence previously described, and the alignment of the measure with the job autonomy definition used in this study, the Breugh (1985) measure of job autonomy was used in this study.

As mentioned previously, the researchers who originally constructed the survey upon which this study is based chose to only include the items covering method and scheduling autonomy. It is unknown why the criteria autonomy items were not included. However, as some researchers have found unidimensionality in the Breugh-developed measure, this may not be a concern for this study (Brady et al., 1990).

### Psychological Empowerment

Spreitzer (1995) developed a four-dimensional measure of psychological empowerment by building on the theoretical model of Thomas and Velthouse (1990). The definition of psychological empowerment on which this measure is based is drawn from many different related literatures, including psychology, religion, and sociology. The instrument is based on items taken from measures developed by Tymon (1988; meaning), Jones (1986; competence), Hackman and Oldham (1980; self-determination), and Ashforth (1989; impact). Some of the items were modified by Spreitzer from their original source. The competency items were modified from Jones's (1986) self-efficacy scale. Hackman and Oldham's (1980) autonomy scale items were adapted to create the self-determination items. The Ashforth (1989) helplessness scale was adapted to create the impact items. The remaining items, measuring meaning, were used directly from Tymon (1988). Spreitzer used a pre-test of the new measure to clarify wording and to determine the three strongest items for each factor. Using the final measure, Spreitzer found coefficients alpha of 0.62 and 0.72 for two different samples. She also found moderate support for test-retest reliability. Confirmatory factor analysis provided support for the four-factor model of psychological empowerment (i.e., meaning, competence, self-determination, and impact).

Based on the alignment between the definition of psychological empowerment used in this study and the definition used in development of the measure, and the psychometric evidence previously described, the Spreitzer (1995) measure of psychological empowerment was used in this study.

#### Distributive Justice

Distributive justice was measured using the instrument developed by Price and Mueller (1986). Many researchers have evaluated this instrument and found coefficients alpha ranging from 0.75 to 0.95 (Aryee, Budhwar, & Chen, 2002; Fields, 2002). Researchers have also found support for convergent and discriminant validity, including findings that distributive and procedural justice are empirically distinct (Colquitt et al., 2001; Greenberg, 1990; Lowe & Vodanovich, 1995).

#### Control Variables

The following variables were used as control variables in this study: age, gender, education level, and tenure.

Mathieu and Zajac (1990) recognized the relationship of several demographic variables to organizational commitment, including age, sex, education, and tenure. Employees who are older and have more tenure have been shown to have higher levels of organizational commitment (Porter et al., 1974; Steers, 1977). Some studies have found that women have higher levels of organizational commitment than men (Grusky, 1966), others have found no relationship based on gender (Bruning & Snyder, 1983), while others have found the opposite relationship, that men have higher levels of organizational commitment than women (Dodd-McCue & Wright, 1996). In terms of education level, there appears to be a negative relationship between education level and organizational commitment, with those having the highest level of education having the lowest organizational commitment (Angle & Perry, 1981).

Researchers have also found also found relationships between these control variables and job autonomy (Adler, 1993; Boreham, 1991; Durham et al., 1981; Fenwick & Jon, 1986; Jaffee, 1989; Kalleberg & Buren, 1996; Kalleberg & Leicht, 1986; le Grand et al., 1994; Reskin, 1993; Ross & Reskin, 1992; Singelmann & Mecken, 1992). These findings suggest that job autonomy increases as education level, years on the job, and/or age increase. However, some studies have found no effect related to age (Jaffee, 1989; Kalleberg & Leicht, 1986). Researchers have found that men feel more autonomy than women (likely due to differences in authority accorded to their position; Adler, 1993; le Grand et al., 1994; Reskin, 1993; Ross & Reskin, 1992; Singelmann & Mecken, 1992).

Spreitzer (1996) recognized the potential impact of these control variables on psychological empowerment. Older employees and those with greater tenure may have greater perceptions of empowerment due to the time they have had to rise within an organization (Ettington, 1992). Kanter (1979) proposed that men may have greater perceptions of empowerment than women. Employees with higher levels of education, and therefore greater feelings of competence, may perceive higher levels of psychological empowerment (Spreitzer, 1996).

#### Statistical Methodology

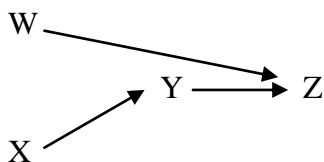
In addition to standard statistical functions (i.e., mean, standard deviation, etc.), data were analyzed using ordinary least squares (OLS) regression and path analysis. Assumptions tested before using either of those procedures included normality, linearity, multicollinearity, homoscedasticity, and independence of residuals (Pedhazur, 1997). Control variables included demographic variables (age, gender, years as a principal, and highest degree earned) and distributive justice. The analyses was done using SPSS and AMOS, with an alpha of 0.05, where needed.

Path analysis is a technique used to examine causal relationships that are supported by theory (Pedhazur, 1997; Stage, Carter, & Nora, 2004). Theoretical support

is a key aspect of path analysis, because it cannot be used discover causal relationships (Pedhazur, 1997; Stage et al., 2004). As described by Stage et al. (2004), “the aim of path analysis is to provide estimates of the magnitude and significance of hypothesized causal connections among sets of variables displayed through the use of path diagrams” (p.5).

A path model (or diagram) assists in the understanding of the relationships to be tested with path analysis. Figure 2 shows a sample path model for variables W, X, Y, and Z. Relationships within a path model are indicated by using arrows. The direction of the arrow indicates the hypothesized direction of the causal relationship. For instance, W is hypothesized to cause Z. The relationship between W and Z would be considered a direct effect of W on Z. The relationship between X and Z, however, would be considered an indirect effect, because X affects Y, which in turn affects Z.

Figure 2. A sample path model.



In the sample path model W and X are independent variables and Z is a dependent variable. In the lexicon of path analysis, W and X are called exogenous variables, and Y and Z are called endogenous variables (Stage et al., 2004). Some may also refer to Y as an intervening variable, or a mediator.

As hypothesized in this study, distributive justice is an exogenous variable, job autonomy and psychological empowerment are intervening variables, and organizational commitment is an endogenous variable.

The underlying assumptions of path analysis include an assumption that all variables are measured on an interval scale (Kleinbaum, Kupper, Muller, & Nizam, 1998;

Stage et al., 2004). In this study, none of the variables are measured on an interval scale. However, ordinal variables with at least five categories are an acceptable alternative in lieu of an interval scale (Stage et al., 2004). The variables of interest in this study, job autonomy, psychological empowerment, distributive justice, and organizational commitment, are all measured on a seven point scale.

The specific path analyses relevant to this study will be described further in Chapter 4.

## CHAPTER IV: ANALYSIS OF DATA AND FINDINGS

This chapter will first explore the validity, construction, and reliability of the instrument used in this study. Next, assumptions necessary to regression will be tested and demographic characteristics will be reported. Each hypothesis will be tested via regression, followed by appropriate path analyses. Finally, results from path analyses will be explained.

The abbreviations used for variables are explained in Table 1.

Table 1. Descriptions of abbreviations for variables.

Abbreviation	Description
Autonomy	The mean score of the items used to measure job autonomy.
Empowerment	The mean score of the items used to measure psychological empowerment
Meaning	The mean score of the items used to measure the meaning component of psychological empowerment.
Competence	The mean score of the items used to measure the competence component of psychological empowerment.
Self-Determination	The mean score of the items used to measure the self-determination component of psychological empowerment.
Impact	The mean score of the items used to measure the impact component of psychological empowerment.
Distributive	The mean score of the items used to measure distributive justice.
Commitment	The mean score of the items used to measure organizational commitment.
Age	The variable representing the age of the respondent. 1="20-29", 2="30-39", 3="40-49", 4="50-59", 5="60 or more"
Gender	The variable representing the gender of the respondent. 1="Female", 2="Male"
Education	The variable representing the education level of the respondent. 1="BA, BS", 2="MA, MS", 3="EdS", 4="EdD, PhD"
Tenure	The variable representing the administrative years of experience of the respondent. 1="Less than 1 year", 2="1 to 3 years", 3="4 to 9 years", 4="10 to 19 years", 5="20 years or more"



### Validation and Construction of the Instrument

All of the items used in this study came from previously established instruments, as discussed in Chapter 3.

In order to establish construct validity, a principal component analysis with varimax rotation was performed. The initial analysis used the eigenvalue-greater-than-one rule to identify the factors. That analysis resulted in seven factors, with organizational commitment split across two factors. The second factor consisted of the two negatively worded items. The analysis was repeated using six fixed factors. Table 2 shows the results of that analysis. Using the six fixed factors method, organizational commitment loaded on a single factor. In both factor analyses, two components of empowerment, self-determination and impact, shared a factor with the method component of autonomy. This loading on a single component is not surprising when one looks at the actual items involved (see Table 2). These items all reference autonomy, control, and deciding on one's own how to do things. In their nomological research on psychological empowerment, Kraimer et al. (1999) also found a significant relationship between job autonomy and the self-determination aspect of empowerment and had similar results with self-determination and impact loading on a single factor. Other researchers have had similar findings (Fulford & Enz, 1995; Hancer, George, & Kim, 2005; Kim & George, 2005).

All of the loadings are over 0.30, so they are interpretable (Tabachnick & Fidell, 1989), and most of the loadings are in excess of 0.71, which is considered excellent (Comrey, 1973). The final item in the commitment scale was removed from further analysis due to a loading of only 0.347.

In order to further examine the factor structure of the empowerment measure, a principal component analysis with varimax rotation and four fixed factors was performed on the empowerment measures alone. As seen in Table 3, the dimensions of empowerment loaded as anticipated.

Table 2. Principal Component Analysis with Varimax Rotation, All Items

Item	Component					
	1	2	3	4	5	6
Autonomy						
I am able to choose the way to go about my job.	<b>.760</b>	.170	.123	.035	-.028	.292
I am able to modify what my job objectives are.	<b>.689</b>	.194	.060	.000	-.011	.249
My job is such that I cannot decide when to do particular work activities.	.298	.145	.069	.084	.017	<b>.762</b>
I have no control over the sequencing of my work activities.	.283	.081	.060	.112	-.007	<b>.765</b>
Empowerment: Meaning						
The work I do is very important to me.	.116	.036	.213	<b>.807</b>	.145	.101
My job activities are personally meaningful to me.	.155	.113	.166	<b>.821</b>	.188	.064
The work I do is meaningful to me.	.170	.057	.194	<b>.859</b>	.173	.066
Empowerment: Competence						
I am confident about my ability to do my job.	.143	.000	.119	.216	<b>.865</b>	.044
I am self-assured about my capabilities to perform my work activities.	.177	.016	.103	.253	<b>.858</b>	.065
I have mastered the skills necessary for my job.	.165	.045	.070	.043	<b>.764</b>	-.054
Empowerment: Self-Determination						
I have significant autonomy in determining how I do my job.	<b>.765</b>	.155	.158	.048	.198	.268
I can decide on my own how to go about doing my work.	<b>.800</b>	.139	.107	.035	.152	.258
I have considerable opportunity for independence and freedom in how I do my job.	<b>.823</b>	.150	.136	.064	.084	.251
Empowerment: Impact						
My impact on what happens in my school is large.	<b>.568</b>	.002	.094	.324	.273	-.184
I have a great deal of control over what happens in my school.	<b>.761</b>	.087	.154	.215	.153	-.138
I have significant influence over what happens in my school.	<b>.747</b>	.026	.192	.241	.159	-.112

Table 2. Continued.

Item	Component					
	1	2	3	4	5	6
Organizational Commitment						
I speak highly of this school to my friends.	.207	.082	<b>.787</b>	.206	.000	-.040
I am not dedicated to this school.	-.003	.031	<b>.536</b>	.052	.057	.161
I am proud to tell others I am part of this school.	.158	.109	<b>.794</b>	.138	.063	-.050
This school inspires the very best job performance in me.	.272	.179	<b>.701</b>	.195	.110	-.077
This school is the best of all possible places to work.	.248	.277	<b>.700</b>	.103	.102	-.024
I don't care about the fate of this school.	-.011	-.009	<b>.545</b>	-.005	.008	.054
This school's values are not the same as mine.	.047	.087	<b>.520</b>	.009	.120	.240
I feel that it is my duty to support this school. <sup>a</sup>	.092	.032	<b>.347</b>	.184	-.011	-.178
Distributive Justice						
My work rewards are proper for the amount of effort that I put in.	.208	<b>.888</b>	.164	.071	.063	.036
My work rewards are proper for the responsibilities that I have in work.	.196	<b>.900</b>	.153	.079	.057	.046
My work rewards are not proper for the amount of experience that I have.	.121	<b>.920</b>	.101	.036	-.023	.097
My work rewards are not proper for my education and training.	.104	<b>.910</b>	.120	.036	-.010	.098

*Note.* Maximum factor loading in each row is in boldface. *a* = item omitted from further analyses.

Table 3. Principal Component Analysis with Varimax Rotation, Empowerment Items

Item	Component			
	1	2	3	4
Meaning				
The work I do is very important to me.	.079	<b>.708</b>	.189	.170
My job activities are personally meaningful to me.	.134	<b>.782</b>	.202	.144
The work I do is meaningful to me.	.129	<b>.914</b>	.175	.147
Competence				
I am confident about my ability to do my job.	.095	.200	<b>.875</b>	.140
I am self-assured about my capabilities to perform my work activities.	.137	.241	<b>.881</b>	.141
I have mastered the skills necessary for my job.	.127	.119	<b>.543</b>	.143
Self-Determination				
I have significant autonomy in determining how I do my job.	<b>.805</b>	.132	.190	.261
I can decide on my own how to go about doing my work.	<b>.874</b>	.111	.144	.253
I have considerable opportunity for independence and freedom in how I do my job.	<b>.838</b>	.131	.094	.301
Impact				
My impact on what happens in my school is large.	.206	.220	.253	<b>.583</b>
I have a great deal of control over what happens in my school.	.361	.158	.141	<b>.767</b>
I have significant influence over what happens in my school.	.339	.177	.154	<b>.806</b>

*Note.* Maximum factor loading in each row is in boldface.

In summary, principal component analyses were used to determine how the items made up each scale. Between the two analyses, all items loaded based on the anticipated dimensions. Only one item was removed from final analyses due to its low factor loading.

#### Reliability of the Instrument

Cronbach's (1951) coefficient alpha was calculated for each sub-scale of the instrument. This value represents the mean of all possible split-half reliability

coefficients. High values of alpha indicate that the items are highly correlated with true scores (Churchill, 1979). The results of these calculations are shown in Table 4.

Table 4. Sub-scale Reliability Coefficients

Factor	Reliability
Job Autonomy	0.777
Empowerment	0.887
Meaning	0.875
Competence	0.819
Self-Determination	0.928
Impact	0.857
Organizational Commitment	0.789
Distributive Justice	0.950

The reliability estimate for the entire instrument was 0.905. The reliability of the individual scales ranged from 0.777 (job autonomy) to 0.950 (distributive justice). These reliabilities are acceptable, given the exploratory nature of this study.

#### Assumptions

The assumptions to be tested before further analysis include normality, linearity, multicollinearity, homoscedasticity, and independence of residuals (Pedhazur, 1997).

In order to test the distribution of variables, normal probability plots were examined. The observed plots were essentially linear for each factor, so the assumption of normality was not violated.

Normal probability residual plots were examined to test the linearity and homoscedasticity assumptions. The observed plots were linear and heteroscedasticity was not observed.

To assess multicollinearity, a correlation matrix of the independent variables was examined (see Table 5). Since no correlations exceeded 0.90, multicollinearity was not present (Kleinbaum et al., 1998). As shown in Table 5, the highest correlation between any two variables was 0.827 between the impact dimension of empowerment and the full measure of empowerment. Aside from correlations between empowerment and dimensions of empowerment, the highest correlation was 0.712 between job autonomy and the self-determination dimension of empowerment.

### Demographic Characteristics

Table 6 shows summary statistics for the demographic variables. The demographic characteristics of the individuals responding to the survey is very similar to the characteristics obtained from a national survey of principals conducted by the U.S. Department of Education (Battle & Gruber, 2009). The distribution by gender is fairly similar (58.2% male/41.5% female versus 49.7%/50.3%), but men may be slightly over-represented in the sample.

The distribution by age is extremely similar. Because the two studies used slightly different ranges, comparisons were made by “splitting” categories as needed. For instance, one age range in the national study was “less than 45.” To make a comparison, the percentage in the range “40-49” for this study was divided in half and then added to the percentages in the lower age ranges (“20-29” and “30-39”). The result was an estimate of 35.9% aged less than 45 in this study versus 33.9% in the national study. This was repeated for the other two categories in the national study, “45-54” and “55 years or more.” In the range “45-54,” this study had an estimate of 35.6% while the national study had 34.5%. In the range “55 years or more,” this study had an estimate of 28.6% while the national study had 31.6%.

Table 5. Correlation Coefficients Matrix among Independent Variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Autonomy											
2. Empowerment	.576**										
3. Meaning	.253**	.656**									
4. Competence	.171**	.678**	.409**								
5. Self-Determination	.712**	.815**	.317**	.331**							
6. Impact	.457**	.827**	.414**	.403**	.608**						
7. Commitment	.303**	.473**	.404**	.265**	.371**	.385**					
8. Distributive Justice	.358**	.301**	.193**	.100**	.338**	.225**	.351**				
9. Age	.039	.121**	.029	.193**	.090**	.053	.081**	.007			
10. Gender	-.097**	-.130**	-.161**	-.072*	-.088**	-.086**	-.160**	.010	-.094**		
11. Education	-.026	.014	-.025	.110**	-.040	.015	-.050	-.097**	.037	.001	
12. Tenure	.044	.105**	-.012	.268**	.035	.044	.041	.018	.487**	.144**	.150**

\*p&lt;.05. \*\*p&lt;.01

The distribution by education level was also quite similar. For B.A., the comparison was 0.6% (this study) to 1.5% (national study). For M.A., it was 57.2% to 61.1%. For Ed.S., it was 29.5% to 29%. Finally, for Ph.D., it was 12.2% to 8.4%.

The comparison for tenure categories was not possible due to the national study only reporting an average of the years of experience. To estimate a value for comparison purposes, a weighted average was calculated from the survey frequency data. The mean of each category range was calculated (i.e., 0.5 for the “Less than 1 year” category, 2 for the “1 to 3 years” category, etc.). For the final category, “20 years or more,” an upper value of 35 was used, resulting in a category mean of 27.5. Each category mean was multiplied by the appropriate count, then the sum of the products was divided by the total count (1,078). This resulted in an average of 11.9 years of experience. This is considerably higher than the average from the national survey (7.5 years of experience). The method for calculating the average age from this study could explain part of that difference, since using the minimum of each age range, rather than the mean, results in an average of 8.1 years of experience. It is not possible to know how the ages are distributed within each age range of this study.

### Regression Analyses

In order to test the influence of the demographic variables age, gender, education level, and tenure on the attitudinal variables job autonomy, psychological empowerment, and organizational commitment, ordinary least squares (OLS) regression was used. After regressing each of the attitudinal variables on each of the demographic variables, six of the relationships were significant at the 0.05 alpha level. Table 7 summarizes these findings.

Gender was related to all three attitudinal variables. In all three cases, males were lower on the attitudinal variable than were females.



Age was related to psychological empowerment and organizational commitment. As age increased both psychological empowerment and organizational commitment increased.

Tenure was related to psychological empowerment. As tenure increased psychological empowerment increased.

### Hypothesis Testing

#### Hypothesis 1

Hypothesis 1: Higher levels of job autonomy will be associated with higher levels of organizational commitment.

To examine the relationship between job autonomy and organizational commitment, an OLS regression equation was calculated. Given the hypothesis, job autonomy was regressed on organizational commitment. The regression model  $\text{Commitment} = \beta(\text{Autonomy})$  was used for testing the model fit. Table 8 shows the results of the regression equation. The model indicated that job autonomy was a significant predictor of organizational commitment ( $p < 0.001$ ) and accounted for 9% of the variance in organizational commitment. This result supports the hypothesis that higher levels of job autonomy will be associated with higher levels of organizational commitment.

#### Hypothesis 2

Hypothesis 2: Higher levels of psychological empowerment will be associated with higher levels of organizational commitment.

To examine the relationship between psychological empowerment and organizational commitment, two OLS regression equations were calculated. Given the hypothesis, psychological empowerment was regressed on organizational commitment. The regression model  $\text{Commitment} = \beta(\text{Empowerment})$  was used for testing the model

Table 6. Summary of Demographic Variables and Comparison to National Sample

Variable	Frequencies (%) <sup>a</sup>	Population % <sup>b</sup>
Gender	1078 (100%)	
Male	631 (58.5%)	49.7%
Female	447 (41.5%)	50.3%
Age	1078 (100%)	
20-29	3 (0.3%)	33.9%
30-39	182 (16.9%)	(less than 45; compare to estimate of 35.9% in study) <sup>c</sup>
40-49	402 (37.3%)	34.5%
50-59	366 (34.0%)	(45-54; compare to estimate of 35.6% in study) <sup>c</sup>
60 or more	125 (11.6%)	31.6%
		(55 years or more; compare to estimate of 28.6% in study) <sup>c</sup>
Highest Degree Earned	1078 (100%)	
B.A., B.S.	6 (0.6%)	1.5%
M.A., M.S.	617 (57.2%)	61.1%
Ed.S.	323 (30.0%)	29%
Ed.D., Ph.D.	132 (12.2%)	8.4%
Years as an Administrator	1078 (100%)	7.5 years of experience on average <sup>d</sup> , compare to estimate of 11.9 in study
Less than 1 year	14 (1.3%)	
1 to 3 years	116 (10.8%)	
4 to 9 years	398 (36.9%)	
10 to 19 years	394 (36.5%)	
20 years or more	156 (14.5%)	

*Note.* *a* = Frequencies and percentages from this study. *b* = Data from Battle and Gruber (2009). *c* = Due to range differences, comparable valuables are estimated by “splitting” the appropriate counts from the survey frequencies column. *d* = Not reported in ranges.

fit. Table 9 shows the results of the regression equation. The model indicated that empowerment was a significant predictor of organizational commitment ( $p < 0.001$ ) and accounted for 22% of the variance in organizational commitment.

Table 7. Statistically Significant Relationships between Attitudinal and Demographic Variables.

Attitudinal Variable	Demographic Variable	$\beta$	p
Autonomy	Gender	-0.202	0.001
Empowerment	Gender	-0.167	0.000
Empowerment	Age	0.084	0.000
Empowerment	Tenure	0.073	0.001
Commitment	Gender	-0.205	0.000
Commitment	Age	0.055	0.009

Table 8. Contribution of Autonomy to Commitment.

Dependent Variable	Independent Variable	$\beta$	p
Commitment	Autonomy	0.185	0.000**
$R^2 = 0.092$ Adj. $R^2 = 0.091$ $P = 0.000^{**}$			

\* $p < .05$ . \*\*  $p < .01$

Given the hypothesis and the sub-scales of empowerment, each of the empowerment sub-scales (meaning, competence, self-determination, and impact) were regressed on organizational commitment. The regression model  $\text{Commitment} = \beta_1(\text{Meaning}) + \beta_2(\text{Competence}) + \beta_3(\text{Self-Determination}) + \beta_4(\text{Impact})$  was used for testing the model fit. Table 9 shows the results of the regression equation. The model indicated that the meaning, self-determination, and impact dimensions of empowerment were significant predictors of organizational commitment ( $p < 0.001$ ) and accounted for 24% of the variance in organizational commitment, but the competence

dimension of empowerment was not found to be a significant predictor of organizational commitment.

These results support the hypothesis that higher levels of psychological empowerment will be associated with higher levels of organizational commitment.

Table 9. Contribution of Empowerment and Empowerment Factors to Commitment.

Dependent Variable	Independent Variable	$\beta$	p
Commitment $R^2 = 0.223$ Adj. $R^2 = 0.223$ $P = 0.000^{**}$	Empowerment	0.467	0.000 <sup>**</sup>
Commitment $R^2 = 0.243$ Adj. $R^2 = 0.241$ $P = 0.000^{**}$	Meaning Competence Self-Determination Impact	0.258 0.028 0.107 0.106	0.000 <sup>**</sup> 0.273 0.000 <sup>**</sup> 0.000 <sup>**</sup>

\* $p < .05$ . \*\*  $p < .01$

### Hypothesis 3

Hypothesis 3: Higher levels of distributive justice will be associated with higher levels of organizational commitment.

To examine the relationship between distributive justice and organizational commitment, an OLS regression equation was calculated. Given the hypothesis, distributive justice was regressed on organizational commitment. The regression model  $\text{Commitment} = \beta(\text{Distributive Justice})$  was used for testing the model fit. Table 10 shows the results of the regression equation. The model indicated that distributive justice was a significant predictor of organizational commitment ( $p < 0.001$ ) and accounted for 12% of the variance in organizational commitment. This result supports the hypothesis that

higher levels of distributive justice will be associated with higher levels of organizational commitment.

Table 10. Contribution of Distributive Justice to Commitment.

Dependent Variable	Independent Variable	$\beta$	p
Commitment	Distributive Justice	0.127	0.000**
$R^2 = 0.123$			
Adj. $R^2 = 0.122$			
P = 0.000**			

\*p < .05. \*\* p < .01

#### Hypothesis 4

Hypothesis 4: The relationship between job autonomy and organizational commitment will be influenced by distributive justice.

To examine the influence of distributive justice on the relationship between job autonomy and organizational commitment, an OLS regression equation was calculated. Given the hypothesis, job autonomy along with distributive justice and the interaction term was regressed on organizational commitment. The regression model  $\text{Commitment} = \beta_1(\text{Autonomy}) + \beta_2(\text{Distributive Justice}) + \beta_3(\text{Autonomy} * \text{Distributive Justice})$  was used for testing the model fit. Table 11 shows the results of the regression equation. The model indicated that job autonomy with distributive justice was a significant predictor of organizational commitment ( $p < 0.001$ ) and accounted for 16% of the variance in organizational commitment. There was a main effect of distributive justice on organizational commitment in that those with higher perceptions of distributive justice also had higher perceptions of organizational commitment. This result partially

supports the hypothesis that the relationship between job autonomy and organizational commitment will be influenced by distributive justice.

Table 11. Contribution of Autonomy and Distributive Justice to Commitment.

Dependent Variable	Independent Variable	$\beta$	p
Commitment $R^2 = 0.160$ Adj. $R^2 = 0.158$ $P = 0.000^{**}$	Autonomy	0.173	0.000 <sup>**</sup>
	Distributive Justice	0.164	0.002 <sup>**</sup>
	Autonomy*Distributive Justice	-0.011	0.228

\* $p < .05$ . \*\*  $p < .01$

#### Hypothesis 5

Hypothesis 5: The relationship between psychological empowerment and organizational commitment will be influenced by distributive justice.

To examine the influence of distributive justice on the relationship between psychological empowerment and organizational commitment, an OLS regression equation was calculated. Given the hypothesis, psychological empowerment along with distributive justice and the interaction term was regressed on organizational commitment. The regression model  $\text{Commitment} = \beta_1(\text{Empowerment}) + \beta_2(\text{Distributive Justice}) + \beta_3(\text{Empowerment} * \text{Distributive Justice})$  was used for testing the model fit. Table 12 shows the results of the regression equation. The model indicated that psychological empowerment with distributive justice and the interaction term was a significant predictor of organizational commitment ( $p < 0.001$ ) and accounted for 28% of the variance in organizational commitment. There was a significant interaction between psychological empowerment and distributive justice on the level of organizational commitment. The effect of empowerment on commitment varied considerably by level of

distributive justice for those with low feelings of empowerment (see Figure 3). In the presence of this significant interaction effect the main effects cannot be interpreted (Finney, Mitchell, Cronkite, & Moos, 1984).

Given the hypothesis and the sub-scales of empowerment, each of the empowerment sub-scales (meaning, competence, self-determination, and impact) along with distributive justice and the interaction terms was regressed on organizational commitment. The regression model  $\text{Commitment} = \beta_1(\text{Meaning}) + \beta_2(\text{Competence}) + \beta_3(\text{Self-Determination}) + \beta_4(\text{Impact}) + \beta_5(\text{Distributive Justice}) + \beta_6(\text{Meaning} * \text{Distributive Justice}) + \beta_7(\text{Competence} * \text{Distributive Justice}) + \beta_8(\text{Self-Determination} * \text{Distributive Justice}) + \beta_9(\text{Impact} * \text{Distributive Justice})$  was used for testing the model fit. Table 12 shows the results of the regression equation. The model indicated that the meaning and self-determination sub-scales with distributive justice were significant predictors of organizational commitment ( $p < 0.001$ ), and accounted for 30% of the variance in organizational commitment, but the competence and impact dimensions of empowerment with distributive justice were not found to be a significant predictor of organizational commitment. There were significant interaction effects between meaning and distributive justice and self-determination and distributive justice on the level of organizational commitment.

The effect of meaning on commitment was enhanced for those with low distributive justice, such that those individuals with low perceptions of meaning had much less commitment to the organization if they also had low feelings of distributive justice (see Figure 4). The effect of self-determination on meaning was similar, in that those with low perceptions of self-determination had much less commitment to the organization if they also had low feelings of distributive justice (see Figure 5). In the presence of the significant interaction effects described previously, the significant main effects found for meaning, self-determination, and distributive justice cannot be interpreted (Finney et al., 1984).

When using the full empowerment measure, these results support the hypothesis that the relationship between psychological empowerment and organizational commitment will be influenced by distributive justice. However, when using the individual sub-scales of the empowerment measure, the hypothesis is only partially supported, in that distributive justice only impacted the relationships between meaning and organizational commitment and between self-determination and organizational commitment.

### Hypothesis 6

Hypothesis 6: The relationship between job autonomy and organizational commitment will be influenced by demographic variables: age, gender, education level, and tenure.

Table 12. Contribution of Empowerment, Empowerment Factors, and Distributive Justice to Commitment.

Dependent Variable	Independent Variable	$\beta$	p
Commitment $R^2 = 0.281$ Adj. $R^2 = 0.279$ $P = 0.000^{**}$	Empowerment	0.634	0.000 <sup>**</sup>
	Distributive Justice	0.413	0.000 <sup>**</sup>
	Empowerment*Distributive Justice	-0.054	0.000 <sup>**</sup>
Commitment $R^2 = 0.304$ Adj. $R^2 = 0.298$ $P = 0.000^{**}$	Meaning	0.459	0.000 <sup>**</sup>
	Competence	0.032	0.614
	Self-Determination	0.163	0.000 <sup>**</sup>
	Impact	0.066	0.284
	Distributive Justice	0.491	0.000 <sup>**</sup>
	Meaning*Distributive Justice	-0.052	0.001 <sup>**</sup>
	Competence*Distributive Justice	0.002	0.872
	Self-Determination*Distributive Justice	-0.025	0.017 <sup>*</sup>
	Impact*Distributive Justice	0.010	0.454

\* $p < .05$ . \*\*  $p < .01$



Figure 3. Commitment as a Function of Empowerment and Distributive Justice.

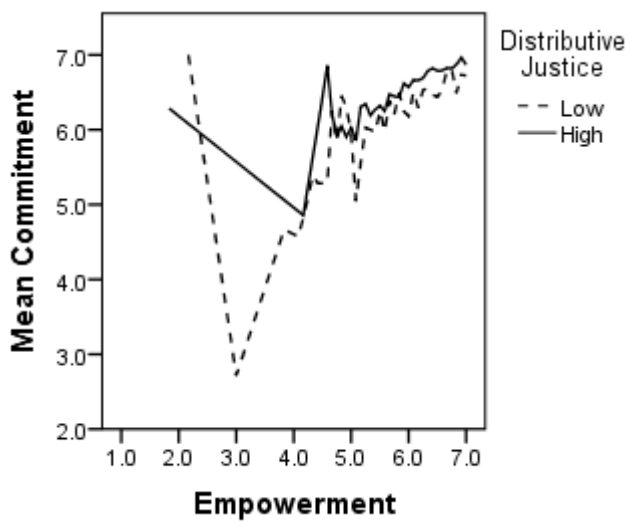


Figure 4. Commitment as a Function of Meaning and Distributive Justice.



Figure 5. Commitment as a Function of Self-Determination and Distributive Justice.



To examine the influence of demographic characteristics on the relationship between job autonomy and organizational commitment, an OLS regression equation was calculated. Given the hypothesis, job autonomy along with the demographic variables age, gender, education level and tenure, and the interaction terms was regressed on organizational commitment. The regression model  $\text{Commitment} = \beta_1(\text{Autonomy}) + \beta_2(\text{Age}) + \beta_3(\text{Gender}) + \beta_4(\text{Education}) + \beta_5(\text{Tenure}) + \beta_6(\text{Autonomy} * \text{Age}) + \beta_7(\text{Autonomy} * \text{Gender}) + \beta_8(\text{Autonomy} * \text{Education}) + \beta_9(\text{Autonomy} * \text{Tenure})$  was used for testing the model fit. Table 13 shows the results of the regression equation. The model indicated that gender and the interaction of job autonomy with tenure were significant predictors of organizational commitment ( $p < 0.001$ ), and accounted for 13% of the variance in organizational commitment. The main effect of gender on commitment indicated that men were more committed than women. There was a significant interaction between job autonomy and tenure on the level of organizational commitment. The effect of autonomy on commitment was such that those with high feelings of autonomy had high commitment to the organization without a great deal of impact from years of

experience, but those with low autonomy had decreasing commitment to the organization as years of experience increased (see Figure 6).

These results partially support the hypothesis that the relationship between job autonomy and organizational commitment will be influenced by demographic variables, in that tenure impacted the relationship between autonomy and organizational commitment.

### Hypothesis 7

Hypothesis 7: The relationship between psychological empowerment and organizational commitment will be influenced by demographic variables: age, gender, education level, and tenure.

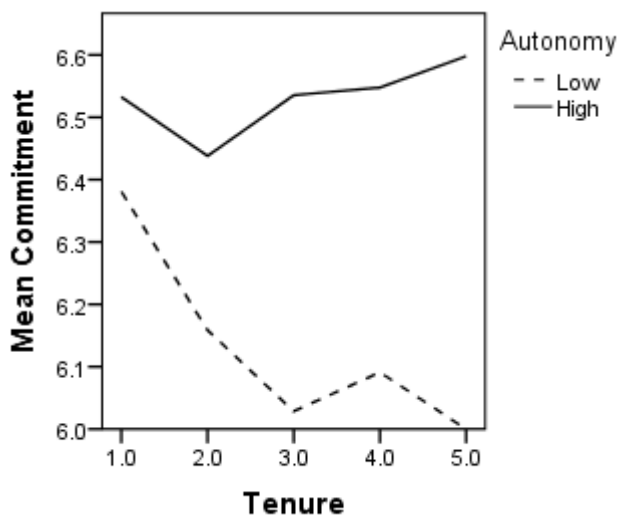
To examine the influence of demographic characteristics on the relationship between psychological empowerment and organizational commitment, an OLS regression equation was calculated. Given the hypothesis, psychological empowerment along with the demographic variables age, gender, education level and tenure, and the interaction terms was regressed on organizational commitment. The regression model

Table 13. Contribution of Autonomy and Demographic Variables to Commitment.

Dependent Variable	Independent Variable	$\beta$	p
Commitment $R^2 = 0.125$ Adj. $R^2 = 0.117$ $P = 0.000^{**}$	Autonomy	0.092	0.421
	Age	0.196	0.128
	Gender	-0.562	0.007 <sup>**</sup>
	Education Level	0.161	0.260
	Tenure	-0.240	0.055
	Autonomy*Age	-0.031	0.176
	Autonomy*Gender	0.069	0.057
	Autonomy*Education Level	-0.036	0.154
	Autonomy*Tenure	0.048	0.031 <sup>*</sup>

\* $p < .05$ . \*\*  $p < .01$

Figure 6. Commitment as a Function of Tenure and Autonomy.



Commitment =  $\beta_1$ (Empowerment) +  $\beta_2$ (Age) +  $\beta_3$ (Gender) +  $\beta_4$ (Education) +  $\beta_5$ (Tenure) +  $\beta_6$ (Empowerment\*Age) +  $\beta_7$ (Empowerment\*Gender) +  $\beta_8$ (Empowerment\*Education) +  $\beta_9$ (Empowerment\*Tenure) was used for testing the model fit. Table 14 shows the results of the regression equation. The model indicated that gender and the interaction of psychological empowerment with gender and psychological empowerment with tenure were significant predictors of organizational commitment ( $p < 0.001$ ), and accounted for 25% of the variance in organizational commitment. There were significant interactions between psychological empowerment and gender and psychological empowerment and tenure on the level of organizational commitment.

For men, the level of empowerment they felt did not affect their commitment to the organization, but for women those with low empowerment were much less committed to the organization (see Figure 7). For those with feelings of high empowerment, they were committed to the organization regardless of tenure, while those with low feelings of empowerment felt less commitment with greater years of experience (see Figure 8). In

the presence of the significant interaction effects described previously, the significant main effects found for gender and tenure cannot be interpreted (Finney et al., 1984).

Given the hypothesis and the sub-scales of empowerment, each of the empowerment sub-scales (meaning, competence, self-determination, and impact) along with psychological empowerment and the interaction terms was regressed on organizational commitment. The regression model  $\text{Commitment} = \beta_1(\text{Meaning}) + \beta_2(\text{Competence}) + \beta_3(\text{Self-Determination}) + \beta_4(\text{Impact}) + \beta_5(\text{Age}) + \beta_6(\text{Gender}) + \beta_7(\text{Education}) + \beta_8(\text{Tenure}) + \beta_9(\text{Meaning*Age}) + \beta_{10}(\text{Meaning*Gender}) + \beta_{11}(\text{Meaning*Education}) + \beta_{12}(\text{Meaning*Tenure}) + \beta_{13}(\text{Competence*Age}) + \beta_{14}(\text{Competence*Gender}) + \beta_{15}(\text{Competence*Education}) + \beta_{16}(\text{Competence*Tenure}) + \beta_{17}(\text{Self-Determination*Age}) + \beta_{18}(\text{Self-Determination*Gender}) + \beta_{19}(\text{Self-Determination*Education}) + \beta_{20}(\text{Self-Determination*Tenure}) + \beta_{21}(\text{Impact*Age}) + \beta_{22}(\text{Impact*Gender}) + \beta_{23}(\text{Impact*Education}) + \beta_{24}(\text{Impact*Tenure})$  was used for testing the model fit. Table 14 shows the results of the regression equation. The model indicated that the gender, tenure, and the interaction terms between meaning and gender, meaning and tenure, self-determination and education level, and impact and education level were significant predictors of organizational commitment ( $p < 0.001$ ) and accounted for 29% of the variance in organizational commitment. There were significant interaction effects between meaning and gender, meaning and tenure, self-determination and education level, and impact and education level on the level of organizational commitment.

The effects of meaning on commitment, related to gender and tenure, were similar to those found in the previous analysis focused on the full empowerment measure. For men, the level of meaning they perceived did not affect their commitment to the organization. For women, those with low perceptions of meaning were much less committed to the organization (see Figure 9). For those with high perception of meaning, they were committed to the organization regardless of tenure. For those with low

perceptions of meaning, they perceived less commitment with greater years of experience (see Figure 10).

The effects of self-determination and impact on commitment were significantly influenced by education level. Individuals with high perceptions of self-determination had slightly decreasing commitment to the organization as education level increased, except for those at the Doctoral level who reported higher levels of commitment. For those low on self-determination, individuals with a Doctoral degree reported much higher perceptions of commitment than those with Masters degrees (see Figure 11). Individuals with high perceptions of impact had slightly decreasing commitment as education level increased, except for those at the Doctoral level who reported similar commitment to those with Masters degrees. For those low in perception of impact, commitment continued to decrease with increased education, even for those with Doctoral degrees (see Figure 12).

In the presence of the significant interaction effects described previously, the significant main effects found for gender and tenure cannot be interpreted (Finney et al., 1984).

These results partially support the hypothesis that the relationship between psychological empowerment and organizational commitment will be influenced by demographic variables, in that gender, tenure, and education level all impacted the relationship between empowerment and organizational commitment.

### Path Analysis

As described in Chapter 3, path analysis is a technique used to examine causal relationships that are supported by theory (Pedhazur, 1997; Stage et al., 2004).

Theoretical support is a key aspect of path analysis, because it cannot be used to discover causal relationships (Pedhazur, 1997; Stage et al., 2004). As described by Stage et al. (2004), “the aim of path analysis is to provide estimates of the magnitude and

significance of hypothesized causal connections among sets of variables displayed through the use of path diagrams” (p.5).

Path analysis can be used to describe both indirect and direct effects. Examples of such effects are described in Chapter 3. Indirect effects are calculated by multiplying the path coefficients between the independent variable and the dependent variable. Total effects are calculated by adding the indirect and direct effects. The total effects can be used to rank the relative importance of each variable.

In this study, based on the theory developed in Chapter 2, path analysis was used to determine the effects of job autonomy and psychological empowerment on organizational commitment. The control variables used were distributive justice, age, gender, education level, and tenure. Two different path analyses were computed, both using organizational commitment as the dependent variable. The first path analysis used the total score on the job autonomy measure and the total score on the empowerment measure as intervening variables. The second path analysis used the total score on the job autonomy measure and the total score of each sub-scale of the empowerment measure (meaning, competence, self-determination, and impact) as intervening variables.

#### Job Autonomy and Empowerment Total Score as Intervening Variables to Organizational Commitment

The first path analysis was computed using the total scores of job autonomy and empowerment with organizational commitment as the dependent variable. The results are shown in Table 15.

Distributive justice had positive direct effects on job autonomy, psychological empowerment, and organizational commitment, and an indirect effect on organizational commitment. Individuals who perceived greater distributive justice also perceived greater job autonomy, greater psychological empowerment, and had greater commitment to the organization. In addition, distributive justice also enhanced feelings of job autonomy and

Table 14. Contribution of Empowerment, Empowerment Factors, and Demographic Variables to Commitment.

Dependent Variable	Independent Variable	$\beta$	p
Commitment $R^2 = 0.252$ Adj. $R^2 = 0.245$ $P = 0.000^{**}$	Empowerment	0.018	0.914
	Age	0.297	0.151
	Gender	-0.915	0.008 <sup>**</sup>
	Education	-0.096	0.683
	Tenure	-0.634	0.002 <sup>**</sup>
	Empowerment*Age	-0.048	0.158
	Empowerment*Gender	0.130	0.020 <sup>*</sup>
	Empowerment*Education	0.008	0.832
	Empowerment*Tenure	0.107	0.002 <sup>**</sup>
	Commitment $R^2 = 0.289$ Adj. $R^2 = 0.273$ $P = 0.000^{**}$	Meaning	-0.249
Competence		0.080	0.633
Self-Determination		0.233	0.087
Impact		-0.132	0.397
Age		0.357	0.135
Gender		-1.064	0.010 <sup>**</sup>
Education		-0.188	0.517
Tenure		-0.815	0.001 <sup>**</sup>
Meaning*Age		-0.038	0.261
Meaning*Gender		0.130	0.042 <sup>*</sup>
Meaning*Education		0.027	0.555
Meaning*Tenure		0.103	0.002 <sup>**</sup>
Competence*Age		0.016	0.606
Competence*Gender		0.073	0.170
Competence*Education		-0.032	0.387
Competence*Tenure		-0.041	0.223
Self-Determination *Age		-0.011	0.683
Self-Determination *Gender		0.023	0.566
Self-Determination *Education		-0.061	0.025 <sup>*</sup>
Self-Determination *Tenure		0.006	0.814
Impact *Age	-0.022	0.492	
Impact *Gender	-0.080	0.128	
Impact *Education	0.087	0.016 <sup>*</sup>	
Impact *Tenure	0.064	0.063	

\* $p < .05$ . \*\*  $p < .01$



Figure 7. Commitment as a Function of Gender and Empowerment.

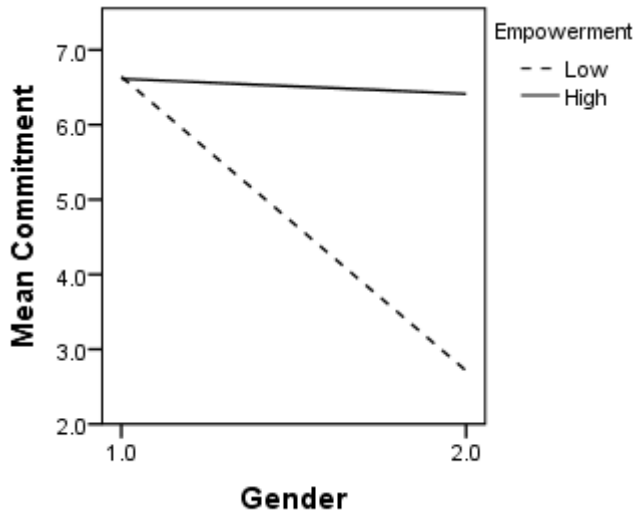


Figure 8. Commitment as a Function of Tenure and Empowerment.

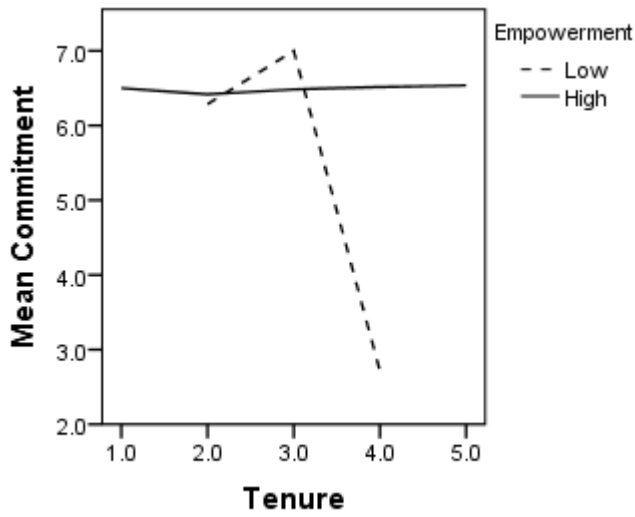


Figure 9. Commitment as a Function of Gender and Meaning.

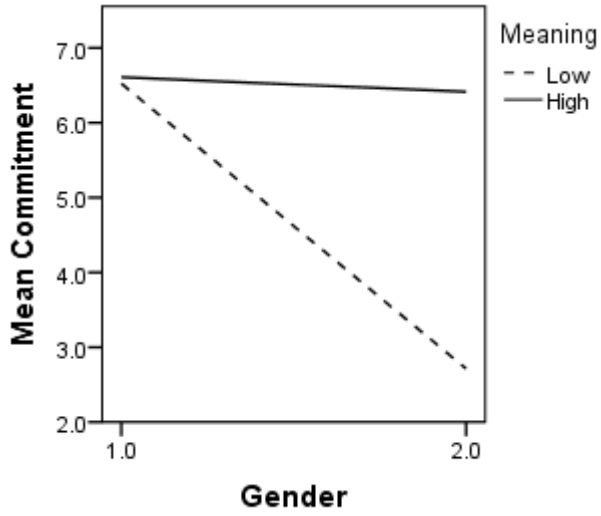


Figure 10. Commitment as a Function of Tenure and Meaning.

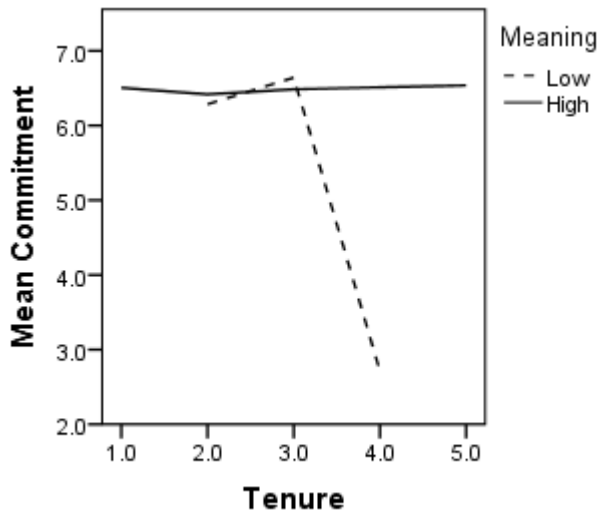


Figure 11. Commitment as a Function of Education and Self-Determination.

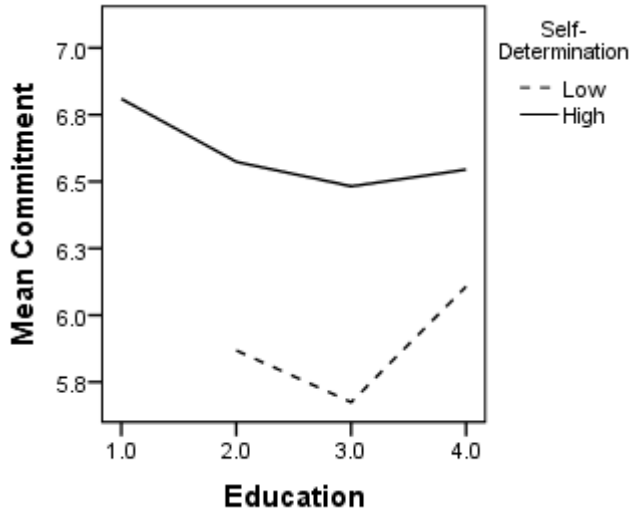
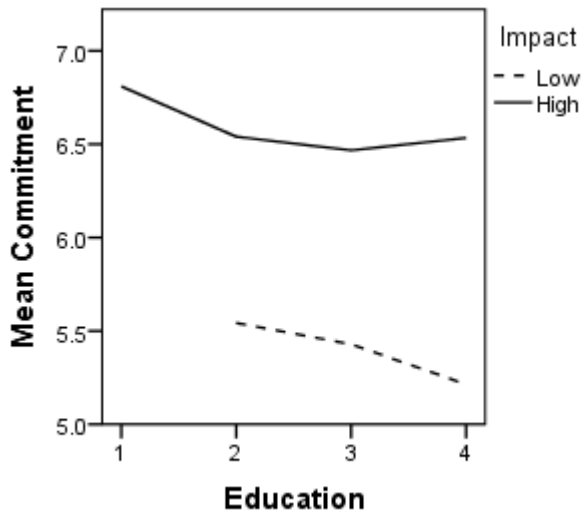


Figure 12. Commitment as a Function of Education and Impact.



psychological empowerment, which therefore yielded higher levels of organizational commitment.

Age had a small, positive indirect effect on organizational commitment. Older individuals had some increases in feelings of job autonomy and psychological empowerment which led to greater organizational commitment.

Gender had negative direct effects on job autonomy, psychological empowerment, and organizational commitment, and a negative indirect effect on organizational commitment. Women perceived less job autonomy, psychological empowerment, and had less commitment to the organization. In addition, women's perception of decreased job autonomy and psychological empowerment yielded less commitment to the organization.

Tenure had a positive direct effect on psychological empowerment and a positive indirect effect on organizational commitment. Individuals with more experience as an administrator had greater psychological empowerment. Also, those feelings of increased psychological empowerment led to increased commitment to the organization.

Psychological empowerment had a direct effect on organizational commitment. Individuals with greater feelings of psychological empowerment experienced greater commitment to the organization.

#### Job Autonomy and Empowerment Sub-Scales as Intervening Variables to Organizational Commitment

The second path analysis was computed using the total score of job autonomy and the total score of each empowerment sub-scale (meaning, competence, self-determination, and impact) with organizational commitment as the dependent variable. The results are shown in Table 16.

As in the first path analysis, distributive justice had positive direct effects on all intervening variables (job autonomy, meaning, competence, self-determination, and impact), a positive direct effect on organizational commitment, and a positive indirect effect on organizational commitment. Individuals who perceived greater distributive justice also perceived greater job autonomy, greater meaning, greater competence, greater self-determination, greater impact, and had greater commitment to the organization. In addition, distributive justice also enhanced feelings of job autonomy and the four factors of empowerment, which therefore yielded higher levels of organizational commitment.

Table 15. Path Analysis Results for Organizational Commitment (Using Empowerment Total Score): Standardized Coefficients and P-values

Variables	Autonomy	Empowerment	Commitment		
	Direct Effect	Direct Effect	Direct Effect	Indirect Effect	Total Effect
Distributive Justice	0.358** (0.010)	0.303** (0.010)	0.236** (0.010)	0.112** (0.010)	0.347* (0.010)
Age	0.001	0.063 (0.053)	0.018 (0.510)	0.025* (0.047)	0.043 (0.170)
Gender	-0.107** (0.010)	-0.139** (0.010)	-0.112** (0.010)	-0.053* (0.010)	-0.165** (0.010)
Education	0.002 (0.956)	0.028 (0.317)	-0.034 (0.154)	0.011 (0.287)	-0.023 (0.304)
Tenure	0.051 (0.119)	0.085** (0.010)	0.008 (0.942)	0.032** (0.010)	0.040 (0.241)
Autonomy			-0.023 (0.441)		-0.023 (0.441)
Empowerment			0.396** (0.010)		0.396** (0.010)

\*p < .05. \*\* p < .01

Table 16. Path Analysis Results for Organizational Commitment (Using Empowerment Sub-Scales): Standardized Coefficients and P-values

Variable	Autonomy		Meaning		Competence		Self-Determination		Impact		Commitment		Total Effect
	Direct Effect		Direct Effect		Direct Effect		Direct Effect		Direct Effect		Direct Effect	Indirect Effect	
Distributive Justice	0.358** (0.010)		0.193** (0.010)		0.104** (0.010)		0.337** (0.010)		0.229** (0.010)		0.239** (0.010)	0.122** (0.010)	0.361** (0.010)
Age	0.001		0.010 (0.638)		0.065 (0.072)		0.078* (0.034)		0.023 (0.549)		0.028 (0.342)	0.017 (0.221)	0.044 (0.170)
Gender	-0.107** (0.010)		-0.161** (0.010)		-0.101* (0.011)		-0.084** (0.010)		-0.093** (0.010)		-0.105* (0.013)	-0.066** (0.010)	-0.174** (0.010)
Education	0.002 (0.946)		-0.008 (0.698)		0.082* (0.015)		-0.010 (0.727)		0.032 (0.318)		-0.028 (0.237)	0.005 (0.746)	-0.023 (0.304)
Tenure	0.051 (0.119)		0.004 (0.951)		0.237** (0.010)		0.004 (0.791)		0.037 (0.209)		0.026 (0.434)	0.016 (0.403)	0.042 (0.241)
Autonomy											0.002 (0.996)		0.002 (0.996)
Meaning											0.240** (0.010)		0.240** (0.010)
Competence											0.037 (0.270)		0.037 (0.270)
Self-Determination											0.106 (0.063)		0.106 (0.063)
Impact											0.153** (0.010)		0.153** (0.010)

\*p < .05. \*\* p < .01

Age has a positive direct effect on self-determination, such that older individuals felt greater self-determination.

Gender had negative direct effects on all intervening variables and organizational commitment, and a negative indirect effect on organizational commitment. Women perceived less job autonomy, less meaning, less competence, less self-determination, less impact, and had less commitment to the organization. In addition, women's perception of those decreased feelings yielded less commitment to the organization.

Education had a positive direct effect on competence, such that those with more education felt more competent. Similarly, tenure had a positive direct effect on competence, such that those with more experience felt more competent.

The empowerment factors of meaning and impact had a direct effect on organizational commitment. Individuals with greater perception of meaning and impact experienced higher levels of commitment to the organization.

#### Importance of Variables

The total effects on organizational commitment were examined in both path analyses. The relative importance of each variable was discovered through the standardized total effects (see Table 17).

In the first path analysis, psychological empowerment was the most important variable in explaining organizational commitment. As psychological empowerment increased, organizational commitment increased. The second most important variable was distributive justice. As distributive justice increased, organizational commitment increased. The third most important variable was gender. Women had higher organizational commitment than men.

In the second path analysis, distributive justice was the most important variable. As in the first path analysis, increased distributive justice was associated with increased organizational commitment. The sub-scales of meaning and impact were the second and

fourth most important variables. As with the empowerment total score in the first path analysis, increases in meaning and impact were associated with increased organizational commitment. Gender was the third most important variable. Women had higher organizational commitment than men.

Table 17. Ranking of Importance of Variables Based on Standardized Total Effects on Organizational Commitment

Ranking	Variable	Total Effect
Path Analysis with Empowerment Total Score		
1	Empowerment	0.396
2	Distributive Justice	0.347
3	Gender	-0.165
Path Analysis with Empowerment Sub-Scales		
1	Distributive Justice	0.361
2	Meaning	0.240
3	Gender	-0.174
4	Impact	0.153



## CHAPTER V: DISCUSSION AND ANALYSIS

This chapter will begin with a review of study purposes and findings. Next, each of the variables and their impact on organizational commitment will be discussed. Organizational and policy implications will be explored, followed by recommendations for future research.

The purpose of this study was to examine the effects of psychological empowerment, job autonomy, and distributive justice on the organizational commitment of school principals. Specifically, the study was designed to assess the relationships between job autonomy and psychological empowerment, and organizational commitment. It was hypothesized that higher levels of job autonomy and higher levels of psychological empowerment would both be associated with higher levels of organizational commitment. It was also hypothesized that those relationships would be impacted by levels of distributive justice and demographic variables. The demographic variables studied include age, gender, education level, and years as an administrator.

The model of the relationships between these variables was developed in Chapter 2. Listed in Table 18 is a summary of the findings for each hypothesis. All hypotheses were at least partially supported. Those that were only partially supported involved situations where some demographic variables impacted the relationship, while others did not, or where the relationship with some factors of empowerment were significant while others were not.

### Organizational Commitment

Organizational commitment refers to the strength of one's identification with and involvement in a particular organization. "It can be characterized by at least three related factors: (1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization" (Mowday et al., 1979, p. 226). In

Table 18. Summary of Hypothesized Findings.

Hypothesis	Finding
1. Higher levels of job autonomy will be associated with higher levels of organizational commitment.	Supported
2. Higher levels of psychological empowerment will be associated with higher levels of organizational commitment.	Supported
3. Higher levels of distributive justice will be associated with higher levels of organizational commitment.	Supported
4. The relationship between job autonomy and organizational commitment will be influenced by distributive justice.	Partially Supported
5. The relationship between psychological empowerment and organizational commitment will be influenced by distributive justice.	Supported <sup>a</sup> Partially Supported <sup>b</sup>
6. The relationship between job autonomy and organizational commitment will be influenced by demographic variables: age, gender, education level, and tenure.	Partially Supported
7. The relationship between psychological empowerment and organizational commitment will be influenced by demographic variables: age, gender, education level, and tenure.	Partially Supported

*Note.* *a* = Using full empowerment measure. *b* = Using individual empowerment factors.

Chapter 2, the organizational commitment literature was reviewed in order to understand what may contribute to increased organizational commitment. Several independent and intervening variables were selected as a result of that review. Hypotheses regarding relationships between these variables were also proposed. The measure modified by Mowday et al. (1979), consisting of only the nine positively-worded items from the original Organizational Commitment Questionnaire (OCQ; Porter et al., 1974), was used to measure organizational commitment.

### Job Autonomy

Job autonomy was defined as the discretion with which one can choose the methods and procedures to complete work, can choose the scheduling and sequencing of

work activities, and can choose the criteria by which one's work is evaluated (Breugh, 1985; Hackman & Oldham, 1975). Gagne and Deci (2005) found that the motivation inherent in autonomy facilitates the development of commitment to the organization. Given the literature reviewed in Chapter 2, job autonomy was selected as an intervening variable. It was hypothesized that job autonomy and organizational commitment would be positively related. Breugh's (1985) measure was used to measure job autonomy.

Job autonomy was found to be related to organizational commitment. As hypothesized, higher levels of job autonomy were related to higher levels of organizational commitment. When distributive justice was included in the regression, both autonomy and distributive justice contributed significantly to organizational commitment, but there was no significant interaction effect. When demographic variables were include in the regression there was a significant interaction between autonomy and years as an administrator such that those with high feelings of autonomy had high commitment to the organization without a great deal of impact from years of experience, but those with low perceptions of autonomy had decreasing commitment to the organization as years of experience increased.

### Psychological Empowerment

The definition of psychological empowerment used in this study was "a motivational construct manifested in four cognitions: meaning, competence, self-determination, and impact" (Spreitzer, 1995, p. 1444). Dee et al. (2003) theorized that an employee can build commitment to an organization when they have "responsibility for consequential activity" (p.5), and that empowerment allows that employee to engage in consequential activities. Dee et al. (2003) hypothesized that, "empowerment may provide the conditions necessary to building organizational commitment" (p. 261). It was hypothesized that psychological empowerment and organizational commitment would be

positively related. Spreitzer's (1995) measure was used to measure psychological empowerment.

Psychological empowerment was found to be related to organizational commitment. As hypothesized, higher levels of psychological empowerment were related to higher levels of organizational commitment. When distributive justice was included in the regression, there was a significant interaction effect with empowerment and distributive justice. The effect of empowerment on commitment varied considerably by level of distributive justice for those with low feelings of empowerment. For those with high feelings of empowerment, the relationship was as predicted (low empowerment related to low commitment, high empowerment related to high commitment).

#### Distributive Justice

Distributive justice was defined as one's feelings of fairness in how work outcomes are distributed relative to work inputs (Greenberg, 1990). Researchers have found positive relationships between distributive justice and organizational commitment (Lowe & Vodanovich, 1995; McFarlin & Sweeney, 1992). Other researchers have found positive relationships between distributive justice and job autonomy (Agho et al., 1993; Cropanzano & Folger, 1989), and between distributive justice and psychological empowerment (Keller & Dansereau, 1995; Zapata-Phelan et al., 2009); including findings where distributive justice impacted other relationships (Boudrias et al., 2010). It was hypothesized that distributive justice and organizational commitment would be positively related. It was also hypothesized that distributive justice would impact the relationship between job autonomy and organizational commitment and between psychological empowerment and organizational commitment. The instrument developed by Price and Mueller (1986) was used to measure distributive justice.

Distributive justice was found to be related to organizational commitment. As hypothesized, higher levels of distributive justice were related to higher levels of

organizational commitment. Distributive justice also influenced the relationships between job autonomy and organizational commitment and between psychological empowerment and organizational commitment, as hypothesized.

### Methods

The participants in this study were elementary and secondary principals from public, private/parochial schools, and charter schools in the Midwest region of the United States of America. The web-based survey was distributed to 9,178 valid email addresses. 1,563 surveys were completed, resulting in a response rate of 17%.

Principal component analysis with varimax rotation was used to determine the construct validity of the combined instrument used in this study. One item was omitted due to a low factor loading; specifically, the final item of the organizational commitment scale. Multiple regression analysis was used to examine all hypothesized relationships. Path analysis was used to examine the entire model, as presented in Chapter 2.

### Hypothesis 1

Hypothesis 1 stated that there would be a positive relationship between job autonomy and organizational commitment. The multiple regression analysis indicated that job autonomy was a significant predictor of organizational commitment ( $p < 0.001$ ) and accounted for 9% of the variance in organizational commitment.

This finding was consistent with other studies (Bono & Judge, 2003; Kemp et al., 1983; Parker et al., 2001). Spector's (1986) meta-analysis found that job autonomy was a predictor of organizational commitment. A more recent meta-analysis, conducted by Humphrey et al. (2007), confirmed this finding. Halaby and Weakliem (1989) argued that in order to gain an understanding of how organizational commitment is formed in an individual, one must explore job autonomy as an essential factor. Gagne and Deci (2005) discussed how autonomy leads to commitment, explained through a longitudinal research design.

### Hypothesis 2

Hypothesis 2 stated that there would be a positive relationship between psychological empowerment and organizational commitment. Multiple regression analysis indicated that psychological empowerment was a significant predictor of organizational commitment ( $p < 0.001$ ), and accounted for 22% of the variance in organizational commitment. Analysis using the subscales of psychological empowerment found that the meaning, self-determination, and impact dimensions of empowerment were significant predictors of organizational commitment ( $p < 0.001$ ), and accounted for 24% of the variance in organizational commitment. The competence dimension of empowerment, however, was not found to be a significant predictor of organizational commitment

These findings were consistent with other studies (Kirkman & Benson, 1999; Liden et al., 2000; McDermott et al., 1996). Konczak et al. (2000) found that the relationship between leader behaviors and organizational commitment was mediated by psychological empowerment. Nyhan (2000) also found that empowerment of employees leads to increased trust in managers, and that then leads to increased organizational commitment in those employees. Dee et al. (2003) discussed the importance of employee responsibility for consequential activity, noting that such responsibility can be a means for building commitment to an organization. Empowerment allows employees to engage in consequential activities. Dee et al. (2003) hypothesized that, “empowerment may provide the conditions necessary to building organizational commitment” (p. 261). Kraimer et al. (1999) found that two dimensions of empowerment, self-determination and impact, accounted for 38% of the variance in organizational commitment.

### Hypothesis 3

Hypothesis 3 stated that there would be a positive relationship between distributive justice and organizational commitment. Multiple regression analysis

indicated that distributive justice was a significant predictor of organizational commitment ( $p < 0.001$ ) and accounted for 12% of the variance in organizational commitment.

This finding was consistent with other studies. McFarlin and Sweeney (1992) found a significant correlation between distributive justice and organizational commitment such that distributive justice contributed a  $\Delta R^2$  of 0.23 (significant at  $p < 0.001$ ) with organizational commitment as the dependent variable, after controlling for demographic variables. Lowe and Vodanovich (1995) had a similar result. After entering control variables and procedural justice in a hierarchical regression analysis, distributive justice contributed an additional 16% (significant at  $p < 0.01$ ) to the variance of organizational commitment.

#### Hypothesis 4

Hypothesis 4 stated that distributive justice would influence the relationship between job autonomy and organizational commitment. Multiple regression analysis indicated that job autonomy with distributive justice was a significant predictor of organizational commitment ( $p < 0.001$ ), and accounted for 16% of the variance in organizational commitment. There were main effects of both job autonomy and distributive justice on organizational commitment, but the interaction effect was not significant.

In the path analyses, the direct effect of job autonomy on organizational commitment was not significant in the presence of demographic variables, distributive justice and psychological empowerment (both the full measure and the sub-scales). Distributive justice, however, did have a significant indirect effect on organizational commitment, consistent with the hypothesis.

Research on the impact of distributive justice on the relationship between job autonomy and organizational commitment is minimal; hence the importance of the

present study. Researchers have found strong relationships between distributive justice and organizational commitment (Lowe & Vodanovich, 1995; McFarlin & Sweeney, 1992). After controlling for demographics and procedural justice, Lowe and Vodanovich (1995) found that distributive justice contributed 16% to the variance of organizational commitment as the outcome variable. McFarlin and Sweeney (1992) had similar results, with distributive justice contributing 23% to the variance of organizational commitment after controlling for tenure, gender, age, salary, and job type.

#### Hypothesis 5

Hypothesis 5 stated that distributive justice would influence the relationship between psychological empowerment and organizational commitment. Multiple regression analysis indicated that psychological empowerment with distributive justice and the interaction term was a significant predictor of organizational commitment ( $p < 0.001$ ), and accounted for 28% of the variance in organizational commitment. There was a significant interaction between psychological empowerment and distributive justice on the level of organizational commitment.

Analysis using the subscales of empowerment indicated that the meaning and self-determination sub-scales with distributive justice were significant predictors of organizational commitment ( $p < 0.001$ ), and accounted for 30% of the variance in organizational commitment. The competence and impact dimensions of empowerment with distributive justice, however, were not found to be a significant predictor of organizational commitment. There were significant interaction effects between meaning and distributive justice and self-determination and distributive justice on the level of organizational commitment.

In the path analyses, the direct effect of psychological empowerment on organizational commitment was significant in the presence of demographic variables,



distributive justice and job autonomy. Distributive justice also had a significant indirect effect on organizational commitment, consistent with the hypothesis.

Research on the impact of distributive justice on the relationship between psychological empowerment and organizational commitment is minimal; hence the importance of the present study. Researchers have found strong relationships between distributive justice and organizational commitment (Lowe & Vodanovich, 1995; McFarlin & Sweeney, 1992). They have also found support for distributive justice and variables related to distributive justice—like organizational structure, access to sources of system power, and organizational culture—and their relationship to psychological empowerment (Spreitzer, 1992; Zhang & Agarwal, 2009).

#### Hypothesis 6

Hypothesis 6 stated that demographic variables would influence the relationship between job autonomy and organizational commitment. Multiple regression analysis indicated that gender and the interaction of job autonomy with tenure were significant predictors of organizational commitment ( $p < 0.001$ ), and accounted for 13% of the variance in organizational commitment. The main effect of gender on commitment indicated that men were more committed than women. There was a significant interaction between job autonomy and tenure on the level of organizational commitment.

In one path analysis, age, gender, and tenure had significant indirect effects on organizational commitment in the presence of distributive justice, job autonomy, and the full measure of psychological empowerment. The only demographic variable not to have a significant indirect effect on organizational commitment in that path analysis was education level. In the other path analysis, using the sub-scales of empowerment, gender was the only demographic variable to have a significant indirect effect on organizational commitment.

This finding was consistent with other studies (Adler, 1993; Boreham, 1991; Kalleberg & Buren, 1996; le Grand et al., 1994). While those studies did not directly study the impact of these demographic variables on the relationship between job autonomy and organizational commitment, they did confirm the impact of those variables on job autonomy, which has also been shown to have a positive relationship with organizational commitment (Bono & Judge, 2003; Humphrey et al., 2007).

### Hypothesis 7

Hypothesis 7 stated that demographic variables would influence the relationship between psychological empowerment and organizational commitment. Multiple regression analysis indicated that gender and the interaction of psychological empowerment with gender and psychological empowerment with tenure were significant predictors of organizational commitment ( $p < 0.001$ ), and accounted for 25% of the variance in organizational commitment. There were significant interactions between psychological empowerment and gender, and psychological empowerment and tenure on the level of organizational commitment.

Analysis using the subscales of empowerment indicated that the gender, tenure, and the interaction terms between meaning and gender, meaning and tenure, self-determination and education level, and impact and education level were significant predictors of organizational commitment ( $p < 0.001$ ) and accounted for 29% of the variance in organizational commitment. There were significant interaction effects between meaning and gender, meaning and tenure, self-determination and education level, and impact and education level on the level of organizational commitment.

As described in the discussion of Hypothesis 6, above, the indirect effects of demographic variables on organizational commitment were mixed.

### Discussion of Path Analysis and the Overall Model

Two path analyses were conducted. The first used the full measure of psychological empowerment, the second used the sub-scales (meaning, competence, self-determination, and impact). In both analyses, distributive justice and gender both had significant direct and indirect effects on organizational commitment. Tenure and age both had significant indirect effects on organizational commitment in the first path analysis, but not in the second. The full measure of empowerment had significant direct effects on organizational commitment in the first path analysis, but in the second path analysis only the sub-scales of meaning and impact had direct effects on organizational commitment. Job autonomy did not have significant direct effects in either path analysis.

Distributive justice and gender were important variables as shown by their total effects on organizational commitment in both path analyses. Empowerment was also an important variable, both as a total score and with the sub-scales of meaning and impact. In terms of gender, women were more committed to the organization than were men. For the other variables, increases in each variable were associated with increases in organizational commitment. These results are consistent with previous research that found that increased organizational commitment is associated with increased distributive justice (McFarlin & Sweeney, 1992) and increased psychological empowerment (Liden et al., 2000), and that women tend to be more committed than men (Grusky, 1966; Hrebiniak & Alutto, 1972; Mathieu & Zajac, 1990).

### Organizational and Policy Implications

Principals have a significant impact on schools and appear to impact student achievement (Barth, 2001; Brookover et al., 1982; Daresh, 1986; Edmonds, 1981; Fuller, Young, & Orr, 2007; Kushman, 1992; Marzano et al., 2005). They strengthen productive cultures over a period of time (Groff, 2001). Schools are confronting many challenges in terms of retention of principals and stability of leadership (Potter, 2001; Whitaker, 2003).

Many principals are reaching the retirement age, and there is a shortage of qualified candidates to fill the positions they will vacate (Educational Research Service, 1998; Ferrandino, 2001; Gajda & Militello, 2008; Gilman & Lanman-Givens, 2001; Gross, 2006; National Association of Elementary School Principals, n.d.; National Association of Secondary School Principals, 2011). In some areas, there are sufficient pools of certified administrators, but they may be marginally qualified or simply choose not to become principals (Bell, 2001; Cushing et al., 2003; Cusick, 2003; Lamke, 2002; Lovely, 2004; McKay, 1999; Noor, 2008; Orozco & Oliver, 2001).

Given the relationship between organizational commitment and turnover, this study suggested that one potential mechanism for keeping principals on the job is to increase their commitment to the organization. Results suggest that job autonomy, psychological empowerment, and distributive justice are all related to organizational commitment. Increments in autonomy and empowerment among principals, and higher levels of perceived distributive justice, may contribute to increased organizational commitment, and subsequently, decreased turnover.

School districts may employ various means to increase autonomy. The definition of job autonomy used in this study suggests several starting points. Job autonomy refers to the discretion with which one can choose the methods and procedures to complete work, can choose the scheduling and sequencing of work activities, and can choose the criteria by which one's work is evaluated. Allowing principals to choose the methods and procedures to complete work may be as simple as describing to them desired end results, and allowing them to choose among viable alternatives likely to obtain those results. Allowing more latitude regarding the scheduling and sequencing of their work may also increase autonomy. School districts could allow time in schedules, for example, that would be available for activities within a principal's discretion, during breaks when students and teachers are not working but administrators are on the job. Additionally, allowing principals to have input in terms of how their work is evaluated may also

contribute to higher levels of perceived autonomy. While some states may have more rigid evaluation criteria than others, there is likely to be some opportunity for flexibility; whether it be in the criteria, the methods, or some other aspect of evaluation.

The concept of policy governance, used by many boards, could potentially be adapted for use with school principals. Policy governance consists of two concepts: ends and limitations. The ends describe the end goal; what is it that should be achieved. The limitations describe the “fences.” For instance, principals may be given the desired end of 95% or better student attendance. There are many ways to achieve that end, some more ethical than others, so limitations may be imposed. An example of a limitation would be agreeing with principals that they cannot increase attendance by giving students financial incentives to come to school. Another limitation may be that a student may only be counted as attending if he/she attends more than 50% of the schools hours on any given day. The intent of the limitations is not to stifle creativity, but rather to establish an agreed upon framework within which the principals can achieve the desired ends.

The psychological empowerment factors of meaning, competence, self-determination, and impact are also readily translated into practices that school districts could use to increase principal empowerment. Meaning, as the fit between an individual’s beliefs and values and his/her work, could be enhanced by selecting principals who are a good fit with the organization. Human resources departments could structure the interview and selection process such that the fit of the individual in the organization can be adequately evaluated. Teachers and other staff with whom the principal will work should be included in the interview and selection process. As suggested by Lord and Maher (1991), “the extent to which schemas are shared between leader and subordinate governs the degree to which the exchange is characterized by trust, motivation, and performance, and limits the degree to which misperceptions will occur” (p.136).

Competence could be increased through the availability of relevant professional development opportunities. The professional development may be provided by the

school, by local education agencies, through graduate school, and/or through attendance at professional conferences. Allowing principals more autonomy in decision making, and holding them responsible for their actions, could potentially enhance perceptions of self-determination. The adaptation of policy governance, described previously, may also enhance self-determination. Enabling administrative understanding of individual impact on the school, student achievement, and the culture of the school may also enhance feelings of enhance empowerment.

Distributive justice refers to one's feelings of fairness in how work outcomes are distributed relative to work inputs. Clearly school systems can work to ensure that work outcomes, such as salary, are distributed proportionally to work inputs, such as responsibilities and commitments of a particular position. Having transparent discussions about the responsibilities and time commitments of administrative positions may help all administrators understand how their salaries compare to those of their colleagues, and why they are different.

Organizational commitment antecedents have been categorically classified as personal characteristics, job characteristics, group-leader relations, and organizational characteristics (Mathieu & Zajac, 1990; Steers, 1977). Personal characteristics that the school systems may be able to effect include education, perceived personal competence, ability, salary, and job level. Providing appropriate professional development opportunities could impact many of these personal characteristics. Interestingly, increments in education have been associated with decreased organizational commitment. This is likely due to those with more education having higher expectations and/or more job opportunities (Mathieu & Zajac, 1990).

Job characteristics include skill variety, task autonomy, challenge, and job scope. When designing the position of principal, school systems should consider these characteristics and their impact on organizational commitment. Hackman and Oldham (1976) define skill variety as, "the degree to which a job requires a variety of different

activities in carrying out the work, which involve the use of a number of different skills and talents of the person” (p.257). Allowing a principal to act more as a leader and less as a manager may increase skill variety. Stone and Gueutal (1985) suggested that job complexity, or the combination of all these job characteristics, may contribute to increased organizational commitment.

Characteristics of group-leader relations include group cohesiveness, task interdependence, leader initiating structure, leader consideration, leader communication, and participative leadership. Many of these characteristics are dependent on the relationship between the principal and his/her supervisor. That supervisor, often a superintendent or assistant superintendent, can take steps to improve the timeliness and accuracy of communication and assure participation of the principal in the decision making process. Morris and Steers (1980) suggested that employees are made more aware of their contribution to the organization when the tasks on which they work are highly interdependent.

Critical organizational characteristics associated with organizational commitment include the size of the organization and organizational centralization (Mathieu & Zajac, 1990). Assertedly, the larger an organization, the less personal it is; such an assertion may have negative effects on organizational commitment. An alternative hypothesis would be that larger organizations are able to offer more opportunities to employees; thereby increasing organizational commitment. In their meta-analysis, Mathieu and Zajac (1990) did not find support for either alternative. While organizational decentralization may be hypothesized to contribute to increased employee participation and involvement, and increased organizational commitment here, support for this hypothesis was not found.

Still other antecedents to organizational commitment have been identified in the literature. Some of those include perceived organizational support (Allen, 1992),

employee self-concept (Johnson & Chang, 2008), and supportive leader behaviors (Perryer & Jordan, 2005).

Meyer and Herscovitch (2001) suggested recommendations for management to consider when contemplating how to increase organizational commitment. These recommendations warrant attention. The first recommendation was to, “Carefully consider the desired outcomes of employee commitment and the behaviors required to achieve those outcomes. Based on this assessment, [management may] determine whether it is best to focus on establishing commitment to a broad target (e.g., organization), to more specific objectives (e.g., goal attainment, customer service), or both” (p.322). The second recommendation was to, “Carefully consider what the most appropriate target of commitment might be in any given situation and help employees to see how the desired course of action is relevant to the goals and values of that target” (p.322). Additionally, “Whenever possible, it is desirable to foster affective commitment” (p.323). Finally, “In deciding what strategy to use in gaining employee commitment, consider how it is likely to be perceived and whether it is likely to create the conditions identified as contributing to the development of affective, continuance, or normative commitment” (p.323).

In addition to the focal outcome of organizational commitment, turnover, there are also other outcomes that would benefit schools. Increased organizational commitment has been shown to improve the relationship between principals and teachers, increase student achievement, create climates conducive to learning, improve efficiency, and improve relationships with students and parents (Dannetta, 2002; Ebmeier, 2003; Kushman, 1992). High levels of organizational commitment also are associated with stable organizations, extra-role behaviors, organizational citizenship behaviors, trust, lower levels of conflict, and flattened organizational structures.

Despite extensive inquiry into organizational commitment to date, there is minimal effective guidance for school leaders as they endeavor to promote the



development of organizational commitment via management of related organizational factors (Beck & Wilson, 2001). Meyer and Allen (1997) suggested several organizational factors—resources management practices, leadership styles, and trust within the organization, for example—as factors associated with organizational commitment that can be managed. This study has focused on the extension of available evidence needed to better understand manageable factors associated with employee psychological attachment to his/her workplace; significant meaning and importance that supersedes calculated association with the organization. It is increasingly apparent that multi-dimensional approaches to, and inquiry on commitment—designed to reveal the determinants of commitment and the objects to which individuals are committed—are more likely to yield capacity to predict work outcomes. Understanding of commitment and related processes increases as we examine more than one commitment at a time (Reichers, 1985).

Variations and forms of commitment among principals may be expressed simultaneously, and the magnitude of these commitments needs to be better understood. They have been shown to predict important outcomes (Cohen, 2000, 2003) beyond turnover (Becker, 1992; Blau, 1986) essential for the effective operation of schools.

#### Recommendations for future research

The results of this study demonstrated that there are ways to improve principals' commitment to the organization. This study was conducted in the Midwest United States. The study should be replicated in other areas of the United States and in other countries. This study was also conducted in K-12 schools. It would be valuable to replicate the research with a focus on similar administrative positions in higher education and other non-profit and for-profit organizations.

This study considered several variables as potential antecedents to organizational commitment. Other variables of interest, including perceived organizational support, job

security, teamwork, and the school's commitment to the principal, should be explored. It would also be valuable to include variables such as conflict, resistance to change, procedural justice, trust, and organizational citizenship behaviors.

Many studies of organizational commitment have focused on positive outcomes, such as reduced turnover, decreased absenteeism, and increased organizational citizenship behaviors. Negative outcomes could be hypothesized as well, however. For instance, high levels of organizational commitment could lead to strain in the relationship between an employee and his/her family. Negative outcomes from the point of view of the organization may involve effect on innovation and creativity.

Response rates could potentially have been improved by personalizing the invitation emails, with salutations like, "Dear Dr. Jones," in place of a generic, "Dear School Administrator" (Cook, Heath, & Thompson, 2000; Sánchez-Fernández, Muñoz-Leiva, & Montoro-Ríos, 2012). Sending a pre-notification to individuals alerting them that an invitation would be arriving soon might also have increased response rates (Cook et al., 2000; Sánchez-Fernández et al., 2012). Porter and Whitcomb (2003) also found that providing a deadline and telling the individual that they were selected as part of a small group raised response rates by eight percent. Heerwegh (2006) investigated the effects of lotteries on response rates and found that they increased response rates by about five percent. Some of these ideas should be incorporated into future research on this topic.

The major findings from this study indicate that increases in job autonomy, psychological empowerment, and distributive justice are related to increases in organizational commitment. Given the many positive outcomes of organizational commitment, school districts should consider management practices that may increase organizational commitment in principals. Those who supervise principals should consider allowing principals to choose the methods and procedures to complete work. They might also grant principals more latitude in the scheduling and sequencing of work, in addition

to providing principals with the opportunity for meaningful input in terms of how their work is evaluated. Schools districts should take care to ensure that work outcomes, such as salary, are distributed proportionally to work inputs, such as the responsibilities inherent with a principalship. Finally, school districts should take care to select principals who are a good fit with the organization.

## APPENDIX: SURVEY

**\* Required Information**

**Your privacy is very important to us.** When this survey process concludes, potentially identifying information, such as your email address, will be permanently deleted from the data set, and any information identifying a particular school or district will be given a random key and the original information will be deleted. **We thank you for your participation!**

**\* Which title best describes your professional responsibilities?**

If you are *both* a Principal *and* a Superintendent, please select "Principal" and answer the remaining questions based on your perspective from that position. If your title is *neither* Principal *nor* Superintendent, please select the title that most closely matches your responsibilities.

- Principal
- Superintendent

If you are *neither* a Superintendent *nor* a Principal, and your job responsibilities do not match either position, you may close the browser to discontinue the survey. We apologize for mistakenly including you in our list and thank you for taking the time to get to this point of the survey.

Please complete this survey in one sitting. After 60 minutes of inactivity on a single page your answers on that page may be lost.

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

Next >>

Figure 13: Page 1 of online survey (screenshot)

As a superintendent you likely oversee many schools. Throughout this survey, when you see the word "school" please interpret it as "school district" or "district."

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.



---

Figure 14: Page 2 of online survey (screenshot), only displayed to those who chose "Superintendent" on the first page.

**Number of students in your school**

- Under 50
- 50 - 99
- 100 - 249
- 250 - 499
- 500 - 999
- 1,000 - 1,999
- 2,000 - 3,999
- 4,000 or more

**Choose the level(s) that best describe(s) your school.**

- Elementary
- Middle/Junior High
- High School

**Is your school making Adequate Yearly Progress (AYP) in relation to the No Child Left Behind legislation?**

- Yes
- No
- Don't know
- Does not apply

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

[<< Back](#) [Next >>](#)

Figure 15: Page 3 of online survey (screenshot), only displayed to those who chose "Principal" on the first page.

Please indicate the degree of your agreement or disagreement with the following statements regarding your work.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I am able to choose the way to go about my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to modify what my job objectives are.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job is such that I <b>cannot</b> decide when to do particular work activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have <b>no</b> control over the sequencing of my work activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

<< Back

Next >>

Figure 16: Page 4 of online survey (screenshot), measure of job autonomy (Breugh, 1985)

Please indicate the degree of your agreement or disagreement with the following statements regarding your work.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
The work I do is very important to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job activities are personally meaningful to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The work I do is meaningful to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident about my ability to do my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am self-assured about my capabilities to perform my work activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have mastered the skills necessary for my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have significant autonomy in determining how I do my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can decide on my own how to go about doing my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have considerable opportunity for independence and freedom in how I do my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impact on what happens in my school is large.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a great deal of control over what happens in my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have significant influence over what happens in my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

[<< Back](#)
[Next >>](#)

Figure 17: Page 5 of online survey (screenshot), measure of empowerment (Spreitzer, 1995)



Please indicate the degree of your agreement or disagreement with the following statements regarding your work.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I speak highly of this school to my friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am <b>not</b> dedicated to this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am proud to tell others I am part of this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This school inspires the very best job performance in me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This school is the best of all possible places to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I <b>don't</b> care about the fate of this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This school's values are <b>not</b> the same as mine.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that it is my duty to support this school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

<< Back

Next >>

Figure 18: Page 6 of online survey (screenshot), measure of organizational commitment (Price, 1997)

Please indicate the degree of your agreement or disagreement with the following statements regarding your work rewards (i.e., salary, time off, satisfaction, etc.).

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
My work rewards are proper for the amount of effort that I put in.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work rewards are proper for the responsibilities that I have in work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work rewards are <b>not</b> proper for the amount of experience that I have.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work rewards are <b>not</b> proper for my education and training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

[<< Back](#) [Next >>](#)

Figure 19: Page 7 of online survey (screenshot), measure of distributive justice (Price & Mueller, 1986)

Please indicate the degree of your agreement or disagreement with the following statements regarding the procedures used to arrive at your salary, time off, promotions, etc. (i.e., outcomes from your work).

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I have been able to express my views and feelings during these procedures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have had influence over the outcomes arrived at by these procedures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These procedures have been applied consistently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These procedures have been free of bias.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These procedures have been based on accurate information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have been able to appeal the outcomes arrived at by these procedures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
These procedures upheld ethical and moral standards.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

[<< Back](#)
[Next >>](#)

Figure 20: Page 8 of online survey (screenshot), measure of procedural justice (Colquitt et al., 2001)

Please indicate the degree of your agreement or disagreement with the following statements.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
I'd rather be bored than surprised.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'll take a routine day over a day full of unexpected events any time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whenever my life forms a stable routine, I look for ways to change it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I generally consider changes to be a negative thing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like to do the same old things rather than try new and different ones.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If I were to be informed that there's going to be a significant change regarding the way things are done at work, I would probably feel stressed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am informed of a change of plans, I tense up a bit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When things don't go according to plans, it stresses me out.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

<< Back
Next >>

Figure 21: Page 9 on online survey (screenshot), measure of resistance to change (Oreg, 2003)

Please indicate the degree of your agreement or disagreement with the following statements.

	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
If my supervisor(s) changed the criteria for evaluating employees, it would probably make me feel uncomfortable even if I thought I'd do just as well without having to do any extra work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Changing plans seems like a real hassle to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When someone pressures me to change something, I tend to resist it even if I think the change may ultimately benefit me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Once I've made plans, I'm not likely to change them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Often, I feel a bit uncomfortable even about changes that may potentially improve my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't change my mind easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I often change my mind.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My views are very consistent over time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

<< Back
Next >>

Figure 22: Page 10 of online survey (screenshot), measure of resistance to change cont. (Oreg, 2003)

All organizations experience varying levels of conflict amongst and between groups in that organization. For your school, please estimate the level of conflict amongst or between the following groups.

	Low 1	2	3	Medium 4	5	6	High 7
Amongst Administrators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Between Administrators and Teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amongst Teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

[<< Back](#) [Next >>](#)

Figure 23: Page 11 of online survey (screenshot), measure of conflict

Please complete the following background information.

Gender
<input type="radio"/> Female
<input type="radio"/> Male

Age
<input type="radio"/> 20-29
<input type="radio"/> 30-39
<input type="radio"/> 40-49
<input type="radio"/> 50-59
<input type="radio"/> 60 or more

Ethnicity
<input type="radio"/> Hispanic or Latino
<input type="radio"/> Not Hispanic or Latino

Race
<input type="checkbox"/> American Indian or Alaska Native
<input type="checkbox"/> Asian
<input type="checkbox"/> Black or African American
<input type="checkbox"/> Native Hawaiian or Other Pacific Islander
<input type="checkbox"/> White
<input type="checkbox"/> Other (please specify)
<input type="text"/>

Figure 24: Page 12 of online survey (screenshot), demographic information

**Highest degree earned**

- Bachelors (B.A., B.S.)
- Masters (M.A., M.S.)
- Specialist (Ed.S.)
- Doctoral (Ed.D., Ph.D.)
- Other (please specify)

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

[<< Back](#) [Next >>](#)

---

Figure 25: Page 12 of online survey continued (screenshot), demographic information



Position type
<input type="radio"/> Full-time
<input type="radio"/> Part-time

Years in current position
<input type="radio"/> Less than 1 year
<input type="radio"/> 1 to 3 years
<input type="radio"/> 4 to 9 years
<input type="radio"/> 10 to 19 years
<input type="radio"/> 20 years or more

Years as a Principal or Superintendent (at this or other schools/districts)
<i>[The answer to this question should be equal to or greater than the answer to the previous question.]</i>
<input type="radio"/> Less than 1 year
<input type="radio"/> 1 to 3 years
<input type="radio"/> 4 to 9 years
<input type="radio"/> 10 to 19 years
<input type="radio"/> 20 years or more

Number of students in your district or school system
<input type="radio"/> Under 500
<input type="radio"/> 500 - 999
<input type="radio"/> 1,000 - 1,999
<input type="radio"/> 2,000 - 4,999
<input type="radio"/> 5,000 - 9,999
<input type="radio"/> 10,000 - 19,999
<input type="radio"/> 20,000 or more

Figure 26: Page 13 of online survey (screenshot), demographic information continued

Is your district or school system making Adequate Yearly Progress (AYP) in regards to the No Child Left Behind legislation?

- Yes
- No
- Don't know
- Does not apply

Please select the option(s) that best describe your school

- Public
- Private
- Parochial
- Charter
- Accredited

Will you be working for this school district/school system for the 2011-2012 school year?

- Yes
- No
- Will be retired
- Don't Know

What position do you anticipate holding next year?

- Superintendent
- Principal
- Teacher
- Other
- Will be retired
- Don't Know

Figure 27: Page 13 of online survey continued (screenshot), demographic information continued

Do you anticipate working for this school district/school system 5 years from now?

- Yes
- No
- Will be retired
- Don't Know

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

<< Back

Next >>

---

Figure 28: Page 13 of online survey continued (screenshot), demographic information continued

If you would like to be notified of the results from this research once they are available, please enter your email address below. This is OPTIONAL. If you choose to provide your email address below it will only be used to notify you when research results are available and it will be kept in a list completely separate from your other responses to this survey.

**Email address:**

  
Characters Remaining: 50

Please do not use your browser's BACK/FORWARD/REFRESH buttons while participating in the survey.

[<< Back](#) [Submit](#)

---

Figure 29: Page 14 of online survey (screenshot), opportunity to receive notification of research results

## REFERENCES

- Abbasi, S. M., Hollman, K. W., & Hayes, R. D. (2008). Bad bosses and how not to be one. *The Information Management Journal*, 52-56.
- Abbott, A. (1988). *The system of professions: An essay on the division of expert labor*. Chicago, IL: University of Chicago Press.
- Adams, J. S. (1963). Towards an understanding of inequity. *The Journal of Abnormal and Social Psychology*, 67(5), 422-436. doi: 10.1037/h0040968
- Adams, J. S. (1965). Inequity in social-exchange. *Advances in Experimental Social Psychology*, 2(4), 267-299. doi: 10.1016/S0065-2601(08)60108-2
- Adler, M. A. (1993). Gender differences in job autonomy. *Sociological Quarterly*, 34(3), 449-465. doi: 10.1111/j.1533-8525.1993.tb00121.x
- Agho, A. O., Mueller, C. W., & Price, J. L. (1993). Determinants of employee job satisfaction: An empirical test of a causal model. *Human Relations*, 46(8), 1007-1027. doi: 10.1177/001872679304600806
- Allen, M. W. (1992). Communication and organizational commitment: Perceived organizational support as a mediating factor. *Communication Quarterly*, 40(4), 357-367.
- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*, 49(3), 252-276. doi: 10.1006/jvbe.1996.0043
- Alliance for Excellent Education. (2005). *Teacher attrition: A costly loss to the nation and to the states*. Washington, DC: Alliance for Excellent Education.
- American Association for Employment in Education. (2008). *Educator supply and demand in the United States*. Retrieved from <http://www.aaee.org/cwt/external/wcpages/wcwebcontent/webcontentpage.aspx?contentid=403>.
- Angle, H. L., & Perry, J. L. (1981). An empirical assessment of organizational commitment and organizational effectiveness. *Administrative Science Quarterly*, 26(1), 1-14.
- Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior*, 23(3), 267-286. doi: 10.1002/job.138
- Ashforth, B. E. (1989). The experience of powerlessness in organizations. *Organizational Behavior and Human Decision Processes*, 43(2), 207-242. doi: 10.1016/0749-5978(89)90051-4
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215. doi: 10.1037/0033-295x.84.2.191
- Barth, R. S. (2001). *Learning by heart*: Jossey-Bass.

- Baruch, Y. (1998). The rise and fall of organizational commitment. *Human Systems Management, 17*(2), 135.
- Bateman, T. S., & Organ, D. W. (1983). Job satisfaction and the good soldier: The relationship between affect and employee "citizenship". *The Academy of Management Journal, 26*(4), 587-595.
- Battle, D., & Gruber, K. (2009). Characteristics of public, private, and Bureau of Indian Education elementary and secondary school principals in the United States: Results from the 2007-08 schools and staffing survey. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Beck, K., & Wilson, C. (2001). Have we studied, should we study, and can we study the development of commitment? Methodological issues and the developmental study of work-related commitment. *Human Resource Management Review, 11*(3), 257-278. doi: 10.1016/s1053-4822(00)00051-6
- Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology, 66*, 32-40. doi: 10.1086/222820
- Becker, T. E. (1992). Foci and bases of commitment: Are they distinctions worth making? *The Academy of Management Journal, 35*(1), 232-244.
- Becker, T. E., Billings, R. S., Eveleth, D. M., & Gilbert, N. L. (1996). Foci and bases of employee commitment: Implications for job performance. *The Academy of Management Journal, 39*(2), 464-482.
- Begley, T. M., & Czajka, J. M. (1993). Panel analysis of the moderating effects of commitment on job satisfaction, intent to quit, and health following organizational change. *Journal of Applied Psychology, 78*(4), 552-556. doi: 10.1037/0021-9010.78.4.552
- Bell, E. (2001). Schools' principal shortage: Fewer teachers want the growing challenge, *San Francisco Chronicle*, p. A21.
- Benner, A. D. (2000). *The cost of teacher turnover*. Austin, TX: Texas Center for Educational Research.
- Blau, G. J. (1986). Job involvement and organizational commitment as interactive predictors of tardiness and absenteeism. *Journal of Management, 12*(4), 577-584. doi: 10.1177/014920638601200412
- Blau, P. M. (1964). *Exchange and power in social life*. New York: J. Wiley.
- Bluedorn, A. C. (1982a). The theories of turnover: Causes, effects, and meaning. In S. B. Bacharach (Ed.), *Research in sociology of organizations* (Vol. 1, pp. 75-128). Greenwich, CT: JAI Press.
- Bluedorn, A. C. (1982b). A unified model of turnover from organizations. *Human Relations, 35*(2), 135-153. doi: 10.1177/001872678203500204

- Bono, J. E., & Judge, T. A. (2003). Self-concordance at work: Toward understanding the motivational effects of transformational leaders. *Academy of Management Journal*, 46(5), 554-571.
- Boreham, P. (1991). Class and control: The labour process and the politics of production. In J. Baxter, M. Emmison & J. Western (Eds.), *Class Analysis and Contemporary Australia*. South Melbourne, Australia: MacMillan Company.
- Boris-Schacter, S. (2007). *Got a minute? Can instructional leadership exist despite the reactive nature of the principalship?* Paper presented at the Leadership Challenge: Improving learning in schools, 2007 Research Conference.
- Bottoms, G., & O'Neill, K. (2001). *Preparing a new breed of school principals: It's time for action*. Retrieved from <http://www.wallacefoundation.org/knowledge-center/school-leadership/principal-training/Documents/Preparing-a-New-Breed-of-School-Principals.pdf>.
- Boudrias, J.-S., Brunet, L., Morin, A. J. S., Savoie, A., Plunier, P., & Cacciatore, G. (2010). Empowering employees: The moderating role of perceived organisational climate and justice. *Canadian Journal of Behavioural Science*, 42(4), 201-211. doi: 10.1037/a0020465
- Brady, G. F., Judd, B. B., & Javian, S. (1990). The dimensionality of work autonomy revisited. *Human Relations*, 43(12), 1219-1228. doi: 10.1177/001872679004301203
- Breagh, J. A. (1985). The measurement of work autonomy. *Human Relations*, 38(6), 551-570. doi: 10.1177/001872678503800604
- Breagh, J. A. (1989). The work autonomy scales: Additional validity evidence. *Human Relations*, 42(11), 1033-1056. doi: 10.1177/001872678904201105
- Breagh, J. A. (1999). Further investigation of the work autonomy scales: Two studies. *Journal of Business & Psychology*, 13(3), 357-373.
- Breagh, J. A., & Becker, A. S. (1987). Further examination of the work autonomy scales: Three studies. *Human Relations*, 40(6), 381-399. doi: 10.1177/001872678704000604
- Breaux, A. L., & Wong, H. K. (2003). *New teacher induction: How to train, support, and retain new teachers*. Mountain View, CA: Harry K. Wong Publications.
- Brewer, D. J. (1993). Principals and student outcomes: Evidence from U.S. high schools. *Economics of Education Review*, 12(4), 281-292. doi: 10.1016/0272-7757(93)90062-1
- Brief, A. P., & Motowidlo, S. J. (1986). Prosocial organizational behaviors. *The Academy of Management Review*, 11(4), 710-725.
- Brooke, P. P., Russell, D. W., & Price, J. L. (1988). Discriminant validation of measures of job satisfaction, job involvement, and organizational commitment. *Journal of Applied Psychology; Journal of Applied Psychology*, 73(2), 139-145. doi: 10.1037/0021-9010.73.2.139

- Brookover, W. B., Beamer, L., Efthim, H., Hathaway, D., Lezotte, L., Miller, S., . . . Tornatzky, L. (1982). *Creating effective schools: An in-service program for enhancing school learning climate and achievement*. Holmes Beach, FL: Learning Publications.
- Bruning, N. S., & Snyder, R. A. (1983). Sex and position as predictors of organizational commitment. *The Academy of Management Journal*, 26(3), 485-491.
- Bucceri, E. (2006). Recruiting principals, a growing challenge. *EdCal*, 35(2).
- Cascio, W. F. (1982). *Costing human resources: The financial impact of behavior in organizations*. New York: Van Nostrand Reinhold Co.
- Center for American Progress. (2008). Principals matter: Strong leadership is key for struggling schools.
- Center for Economic and Policy Research. (n.d.). Retrieved 1/14/12, from [http://www.cepr.net/calculators/turnover\\_calc.html](http://www.cepr.net/calculators/turnover_calc.html)
- Chicago Panel on School Policy. (n.d.). The Chicago Panel on School Policy climate analysis survey: A principal's day. Chicago, IL: Chicago Panel on School Policy.
- Churchill, G. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Clugston, M., Howell, J. P., & Dorfman, P. W. (2000). Does cultural socialization predict multiple bases and foci of commitment? *Journal of Management*, 26(1), 5-30. doi: 10.1177/014920630002600106
- Cohen, A. (1993). Organizational commitment and turnover: A meta-analysis. *Academy of Management Journal*, 36(5), 1140-1157.
- Cohen, A. (2000). The relationship between commitment forms and work outcomes: A comparison of three models. *Human Relations*, 43(3), 387-417.
- Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*. Mahwah, NJ: Erlbaum.
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86(3), 425-445. doi: 10.1037/0021-9010.86.3.425
- Comrey, A. L. (1973). *A first course in factor analysis*. New York, NY: Academic Press.
- Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. *The Academy of Management Review*, 13(3), 471-482. doi: 10.2307/258093
- Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web- or internet-based surveys. *Educational and Psychological Measurement*, 60(6), 821-836. doi: 10.1177/00131640021970934



- Crenson, G. A. (2000). Maryland task force on the principalship. Maryland: Maryland State Board of Education.
- Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297-334. doi: 10.1007/bf02310555
- Cropanzano, R., & Folger, R. (1989). Referent cognitions and task decision autonomy: Beyond equity theory. *Journal of Applied Psychology*, *74*(2), 293-299. doi: 10.1037/0021-9010.74.2.293
- Cummings, T. G., & Molloy, E. S. (1977). *Improving productivity and quality of work life*. New York, NY: Praeger.
- Cushing, K. S., Kerrins, J. A., & Johnstone, T. (2003). Disappearing principals. *Leadership*, *32*(5), 28-29,37.
- Cusick, P. (2003). A study of Michigan's school principal shortage: Michigan State University, The Education Policy Center.
- Dalton, D. R., Krackhardt, D. M., & Porter, L. W. (1981). Functional turnover: An empirical assessment. *Journal of Applied Psychology*, *66*(6), 716-721. doi: 10.1037/0021-9010.66.6.716
- Dannetta, V. (2002). What factors influence a teacher's commitment to student learning? *Leadership and Policy in Schools*, *1*(2), 144-171. doi: 10.1076/lpos.1.2.144.5398
- Daresh, J. C. (1986). Support for beginning principals: First hurdles are highest. *Theory Into Practice*, *25*(3), 168-173. doi: 10.1080/00405848609543220
- Davidson, B., & Taylor, D. (1998). *The effects of principal succession in an accelerated school*. Paper presented at the Annual meeting of the American Educational Research Association, San Diego, CA.
- DeCarlo, T. E., & Agarwal, S. (1999). Influence of managerial behaviors and job autonomy on job satisfaction of industrial salespersons: A cross-cultural study. *Industrial Marketing Management*, *28*(1), 51-62. doi: 10.1016/s0019-8501(98)00022-4
- Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behavior. *Journal of Personality and Social Psychology*, *53*(6), 1024-1037. doi: 10.1037/0022-3514.53.6.1024
- DeCotiis, T. A., & Summers, T. P. (1987). A path analysis of a model of the antecedents and consequences of organizational commitment. *Human Relations*, *40*(7), 445-470. doi: 10.1177/001872678704000704
- Dee, J. R., Henkin, A. B., & Duemer, L. (2003). Structural antecedents and psychological correlates of teacher empowerment. *Journal of Educational Administration*, *41*(3), 245-277. doi: 10.1108/09578230310474412
- Dee, J. R., Henkin, A. B., & Singleton, C. A. (2006). Organizational commitment of teachers in urban schools: Examining the effects of team structures. *Urban Education*, *41*(6), 603-627. doi: 10.1177/0042085906292512

- Deutskens, E., Ruyter, K. D., Wetzels, M., & Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: An experimental study. *Marketing Letters*, *15*(1), 21-36.
- Dodd-McCue, D., & Wright, G. B. (1996). Men, women, and attitudinal commitment: The effects of workplace experiences and socialization. *Human Relations*, *49*(8), 1065-1091. doi: 10.1177/001872679604900803
- Dude, D. J., Mengeling, M. A., & Welch, C. J. (2009). Data sharing: Disclosure, confidentiality, and security. In M. C. Shelley, L. D. Yore & B. Hand (Eds.), *Quality Research in Literacy and Science Education: International Perspectives and Gold Standards* (pp. 559-573). Dordrecht: Springer.
- Dunham, R. B., Grube, J. A., & Castaneda, M. B. (1994). Organizational commitment: The utility of an integrative definition. *Journal of Applied Psychology*, *79*, 370-380.
- Durham, T., Morgan, J., Larcom, B., & Chase-Dunn, C. K. (1981). Control of the work process: The workers' viewpoint. *International Journal of Health Services*, *11*(2), 207-220.
- Ebmeier, H. (2003). How supervision influences teacher efficacy and commitment: An investigation of a path model. *Journal of Curriculum and Supervision*, *18*(2), 110-141.
- Edmonds, R. R. (1981). Making public schools effective. *Social Policy*, *12*(2), 56-60.
- Educational Research Service. (1998). Is there a shortage of qualified candidates for openings in the principalship? An exploratory study. Arlington, VA: Educational Research Service.
- Educational Research Service. (2003). K-12 principals guide to No Child Left Behind. Washington, DC: National Association of Elementary School Principals and National Association of Secondary School Principals.
- Edwards, R. (1979). *Contested terrain: The transformation of the workplace in the twentieth century*. New York, NY: Basic Books.
- Ettington, D. R. (1992). *Successful career plateauing for middle managers*. (Ph.D. 9308305), University of Michigan, United States -- Michigan. ProQuest Dissertations & Theses (PQDT) database.
- Evans, B. K., & Fischer, D. G. (1992). A hierarchical model of participatory decision-making, job autonomy, and perceived control. *Human Relations*, *45*(11), 1169-1189. doi: 10.1177/001872679204501103
- Farley, R. (1997). Racial trends and differences in the United States 30 years after the civil rights decade. *Social Science Research*, *26*(3), 235-262. doi: 10.1006/ssre.1997.0597
- Fenwick, R., & Jon, O. (1986). Support for worker participation: Attitudes among union and non-union workers. *American Sociological Review*, *51*(4), 505-522.

- Ferrandino, V. L. (2001). Challenges for 21st-century elementary school principals. *Phi Delta Kappan*, 82(6), 440.
- Fields, D. L. (2002). *Taking the measure of work: A guide to validated scales for organizational research and diagnosis*. Thousand Oaks, CA: Sage Publications.
- Fink, D., & Brayman, C. (2006). School leadership succession and the challenges of change. *Educational Administration Quarterly*, 42(1), 62-62-89.
- Finney, J. W., Mitchell, R. E., Cronkite, R. C., & Moos, R. H. (1984). Methodological issues in estimating main and interactive effects: Examples from coping/social support and stress field. *Journal of Health and Social Behavior*, 25(1), 85-98.
- Fitz-enz. (1997). It's costly to lose new employees. *Workforce*, 76, 50-51.
- Freidson, E. (1970). *Profession of medicine: A study of the sociology of applied knowledge*. Chicago, IL: University of Chicago Press.
- Fricker, S., Galesic, M., Tourangeau, R., & Yan, T. (2005). An experimental comparison of web and telephone surveys. *Public Opinion Quarterly*, 69(3), 370-392. doi: 10.1093/poq/nfi027
- Fried, Y. (1991). Meta-analytic comparison of the job diagnostic survey and job characteristics inventory as correlates of work satisfaction and performance. *Journal of Applied Psychology*, 76, 690-697.
- Fulford, M. D., & Enz, C. A. (1995). The impact of empowerment on service employees. *Journal of Managerial Issues*, 7(2), 161-175.
- Fullan, M. (1991). *The new meaning of educational change*. New York: Teachers College Press.
- Fuller, E. J. (2007). Principal turnover, teacher turnover and quality, and student achievement.
- Fuller, E. J., & Young, M. (2009). Tenure and retention of newly hired principals in Texas (Issue Brief No. 1). Texas: University Council for Educational Administration.
- Fuller, E. J., Young, M. D., & Baker, B. (2007). *The relationship between principal characteristics, principal turnover, teacher quality, and student achievement*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Fuller, E. J., Young, M. D., & Orr, M. T. (2007). *Career pathways of principals in Texas*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.
- Gaan, N. (2008). A revisit on impact of job attitudes on employee turnover: An empirical study in Indian IT industry.
- Gagne, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362. doi: 10.1002/job.322

- Gajda, R., & Militello, M. (2008). Recruiting and retaining school principals: What we can learn from practicing administrators. *AASA Journal of Scholarship and Practice*, 5(2), 14-20.
- Galen, H. (2005). Restoring teacher empowerment: A possible antidote for current educational changes. *The Delta Kappa Gamma Bulletin*, 71(3), 31-36.
- Gautam, T., van Dick, R., & Wagner, U. (2001). Organizational commitment in Nepalese settings. *Asian Journal of Social Psychology*, 4(3), 239-248. doi: 10.1111/1467-839x.00088
- Gilman, D. A., & Lanman-Givens, B. (2001). Where have all the principals gone. *Educational Leadership*, 58(8), 72-74.
- Glisson, C., & Durick, M. (1988). Predictors of job satisfaction and organizational commitment in human service organizations. *Administrative Science Quarterly*, 33(1), 61-81.
- Gouldner, A. W. (1952). The problem of succession in bureaucracy. In R. Merton, A. Gray, B. Hockey & H. C. Selvin (Eds.), *Reader in bureaucracy* (pp. 339-351). New York: The Free Press.
- Greenberg, J. (1990). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management*, 16(2), 399.
- Greenberg, J. (1994). Using socially fair treatment to promote acceptance of a work site smoking ban. *Journal of Applied Psychology*, 79, 288-297.
- Greenhaus, J. H., & Callanan, G. A. (1994). *Career management*. Fort Worth, TX: The Dryden Press.
- Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463-488. doi: 10.1177/014920630002600305
- Groff, F. (2001). Who will lead? The principal shortage. *State Legislatures*, 27(9), 16.
- Gross, S. J. (2006). *Leadership mentoring: Maintaining school improvement in turbulent times*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Grubb, N. W., & Flessa, J. J. (2006). A job too big for one: Multiple principals and other nontraditional approaches to school leadership. *Educational Administration Quarterly*, 42(4), 518-550. doi: 10.1177/0013161X06290641
- Grusky, O. (1966). Career mobility and organizational commitment. *Administrative Science Quarterly*, 10(4), 488-503.
- Haar, J. M., & Robicheau, J. W. (2007). A 2006 study of the supply and demand of Minnesota public school administrators. *Journal of Scholarship and Practice*, 4(3), 26-33.

- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*(2), 159-170. doi: 10.1037/h0076546
- Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior & Human Performance, 16*(2), 250-279. doi: 10.1016/0030-5073(76)90016-7
- Hackman, J. R., & Oldham, G. R. (1980). *Work redesign*. Reading, MA: Addison-Wesley.
- Halaby, C. N., & Weakliem, D. L. (1989). Worker control and attachment to the firm. *American Journal of Sociology, 95*(3), 549-591.
- Hall, D. T., & Lawler, E. E. (1971). Job pressures and research performance. *American Scientist, 59*(1), 64-73.
- Hallinger, P., & Heck, R. H. (1998). Exploring the principal's contribution to school effectiveness: 1980-1995. *School Effectiveness and School Improvement, 9*(2), 157-191. doi: 10.1080/0924345980090203
- Hancer, M., George, R. T., & Kim, B. (2005). An examination of dimensions of psychological empowerment scale for service employees. *Psychological Reports, 97*(2), 667-672. doi: 10.2466/pr0.97.2.667-672
- Hauenstein, P. (1999). Understanding turnover. *Advantage Hiring Newsletter*. Retrieved from <http://www.performancefactorinc.com/WP/UnderstandingTurnover.pdf>
- Heerwegh, D. (2006). An investigation of the effect of lotteries on web survey response rates. *Field Methods, 18*(2), 205-220. doi: 10.1177/1525822x05285781
- Hill, R., & Banta, B. (2008, 2/11/2008). Principal flight on the rise in the age of accountability. *Austin American Statesman*. Retrieved from <http://www.nctq.org/nctq/research/1204231696257.pdf>
- Hinton, L., & Kastner, J. (2000). *Vermont's principal shortage*. Paper presented at the 2001 Vermont Legislative Research Shop. [http://www.uvm.edu/~vlrs/doc/vermont\\_principal\\_shortage.htm](http://www.uvm.edu/~vlrs/doc/vermont_principal_shortage.htm)
- Hodson, R. (2001). *Dignity at work*. Cambridge, UK: Cambridge University Press.
- Hollander, E. P., & Offermann, L. R. (1990). Power and leadership in organizations: Relationships in transition. *American Psychologist, 45*(2), 179-189. doi: 10.1037/0003-066x.45.2.179
- Holtom, B. C., Mitchell, T. R., Lee, T. W., & Eberly, M. B. (2008). Turnover and retention research: A glance at the past, a closer review of the present, and a venture into the future. *The Academy of Management Annals, 2*(1), 231-274.
- Hom, P. W., & Griffeth, R. W. (1995). *Employee turnover*. Cincinnati, OH: South-Western.
- Homans, G. C. (1961). *Social behavior: Its elementary forms*. New York, NY: Harcourt, Brace, and World.

- Hopkins, G. (1998). Help wanted: Qualified principals. *Education World*.
- Hoy, W., & Miskel, C. (2001). *Educational administration* (6th ed.). New York: McGraw-Hill.
- Hrebiniak, L. G., & Alutto, J. A. (1972). Personal and role-related factors in the development of organizational commitment. *Administrative Science Quarterly*, 17(4), 555-573.
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, 92(5), 1332-1356. doi: 10.1037/0021-9010.92.5.1332
- Illinois State Board of Education Research Division. (2000). *Educator supply and demand*. Retrieved from [http://www.isbe.state.il.us/research/pdfs/ed\\_supply\\_demand\\_00.pdf](http://www.isbe.state.il.us/research/pdfs/ed_supply_demand_00.pdf).
- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534. doi: 10.3102/00028312038003499
- Institute for Educational Leadership. (2000). *Leadership for student learning: Reinventing the principalship*. Washington, D.C.: Institute for Educational Leadership.
- Jaffee, D. (1989). Gender inequality in workplace autonomy and authority. *Social Science Quarterly*, 70(2), 375-390.
- Jaros, S. J. (1997). An assessment of Meyer and Allen's (1991) three-component model of organizational commitment and turnover intentions. *Journal of Vocational Behavior*, 51(3), 319-337. doi: 10.1006/jvbe.1995.1553
- Johnson, L. (2005). Why principals quit. *Principal Politics and the Principalship*, 84(3), 21-23.
- Johnson, R. E., & Chang, C.-H. (2008). Relationships between organizational commitment and its antecedents: Employee self-concept matters. *Journal of Applied Social Psychology*, 38(2), 513-541. doi: 10.1111/j.1559-1816.2008.00336.x
- Jones, G. R. (1986). Socialization tactics, self-efficacy, and newcomers' adjustments to organizations. *Academy of Management Journal*, 29(2), 262-279. doi: 10.2307/256188
- Kalleberg, A. L., & Berg, I. (1987). *Work and industry: Structures, markets, and processes*. New York, NY: Plenum.
- Kalleberg, A. L., & Buren, M. E. V. (1996). Is bigger better? Explaining the relationship between organization size and job rewards. *American Sociological Review*, 61(1), 47-66.

- Kalleberg, A. L., & Leicht, K. T. (1986). Jobs and skills: A multivariate structural approach. *Social Science Research, 15*(3), 269-296. doi: 10.1016/0049-089x(86)90009-8
- Kalleberg, A. L., & Marsden, P. V. (1995). Organizational commitment and job performance in U.S. labor force. In R. L. Simpson & I. H. Simpson (Eds.), *Research in the sociology of work* (Vol. 5, pp. 235-257). Greenwich, CT: JAI Press.
- Kanter, R. M. (1979). Power failure in management circuits. *Harvard Business Review, 57*(4), 65-75.
- Karasek, R. A., Jr. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly, 24*(2), 285-308.
- Keenan, J. (1999). A concept analysis of autonomy. *Journal of Advanced Nursing, 29*(3), 556-562.
- Keller, T., & Dansereau, F. (1995). Leadership and empowerment: A social exchange perspective. *Human Relations, 48*(2), 127-146. doi: 10.1177/001872679504800202
- Kemp, N. J., Wall, T. D., Clegg, C. W., & Cordery, J. L. (1983). Autonomous work groups in a greenfield site: A comparative study. *Journal of Occupational Psychology, 56*(4), 271-288.
- Kennedy, C. (2001). Splitting the principalship. *Principal, 80*(4), 60-61.
- Khatri, N., Fern, C. T., & Budhwar, P. (2001). Explaining employee turnover in an Asian context. *Human Resource Management Journal, 11*(1), 54-74. doi: 10.1111/j.1748-8583.2001.tb00032.x
- Kim, B., & George, R. T. (2005). The relationship between leader-member exchange (LMX) and psychological empowerment: A quick casual restaurant employee correlation study. *Journal of Hospitality & Tourism Research, 29*(4), 468-483. doi: 10.1177/1096348005276498
- Kirkman, B. L., & Benson, R. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *The Academy of Management Journal, 42*(1), 58-74.
- Klein, K. J., Ralls, R. S., Smith-Major, V., & Douglas, C. (1998). *Power and participation in the workplace: Implications for empowerment theory, research, and practice*. University of Maryland at College Park Working Paper. College Park, MD.
- Kleinbaum, D. G., Kupper, L. L., Muller, K. E., & Nizam, A. (1998). *Applied regression analysis and other multivariable methods* (Third ed.). Pacific Grove, CA: Brooks/Cole Publishing Company.
- Kmetz, J. T., & Willower, D. J. (1982). Elementary school principals' work behavior. *Educational Administration Quarterly, 18*(4), 62-78. doi: 10.1177/0013161x82018004006

- Ko, J.-W. (1996). *Assessments of Meyer and Allen's three-component model of organizational commitment in South Korea*. (The University of Iowa Ph.D.), The University of Iowa, United States -- Iowa. Retrieved from <http://proxy.lib.uiowa.edu/login?url=http://search.proquest.com/docview/304256000?accountid=14663> ProQuest Dissertations & Theses (PQDT) database.
- Ko, J.-W., Price, J. L., & Mueller, C. W. (1997). Assessment of Meyer and Allen's three-component model of organizational commitment in South Korea. *Journal of Applied Psychology*, 82(6), 961-973. doi: 10.1037/0021-9010.82.6.961
- Koberg, C. S., Boss, W., Senjem, J. C., & Goodman, E. A. (1999). Antecedents and outcomes of empowerment: Empirical evidence from the health care industry. *Group and Organization Management*, 34(1), 71-91.
- Konczak, L. J., Stelly, D. J., & Trusty, M. L. (2000). Defining and measuring empowering leader behaviors: Development of an upward feedback instrument. *Educational and Psychological Measurement*, 60(2), 301-313. doi: 10.1177/00131640021970420
- Kraimer, M. L., Seibert, S. E., & Liden, R. C. (1999). Psychological empowerment as a multidimensional construct: A test of construct validity. *Educational and Psychological Measurement*, 59(1), 127-142. doi: 10.1177/00131649921969785
- Kraut, A. (1970). *The prediction of turnover by employee attitudes*. New York, NY: IBM World Trade Corporation.
- Kushman, J. W. (1992). The organizational dynamics of teacher workplace commitment: A study of urban elementary and middle schools. *Educational Administration Quarterly*, 28(1), 5-42. doi: 10.1177/0013161X92028001002
- Lamke, K. (2002). Principals take good, bad: State faces shortage of leaders. *BNET Today Management, Strategy, Work Life Skills and Advice for Professionals*.
- le Grand, C., Szulkin, R., & Tåhlin, M. (1994). Organizational structures and job rewards in Sweden. *Acta Sociologica*, 37(3), 231-251. doi: 10.1177/000169939403700302
- Learning Innovations at WestEd. (2001). *Leadership challenges: Supply and demand in Massachusetts schools*. Stoneham, MA.
- Lee, T. W., Ashford, S. J., Walsh, J. P., & Mowday, R. T. (1992). Commitment propensity, organizational commitment, and voluntary turnover: A longitudinal study of organizational entry processes. *Journal of Management*, 18(1), 15-32. doi: 10.1177/014920639201800102
- Leithwood, K. A., & Jantzi, D. (2000). Principal and teacher leadership effects: A replication. *School Leadership & Management*, 20(4), 415-434. doi: 10.1080/13632430020003210
- Leithwood, K. A., & Riehl, C. (2003). *What we know about successful school leadership*. Nottingham: National College for School Leadership.
- Leventhal, G. S., Karuza, J., & Fry, W. R. (1980). Beyond fairness: A theory of allocation preferences. In G. Mikula (Ed.), *Justice and social interaction* (pp. 167-218). New York, NY: Springer-Verlag.



- Liden, R. C., Sparrowe, R. T., & Wayne, S. J. (1997). Leader-member exchange theory: The past and potential for the future. *Research in Personnel and Human Resources Management, 15*, 47-119.
- Liden, R. C., Wayne, S. J., & Sparrowe, R. T. (2000). An examination of the mediating role of psychological empowerment on the relations between the job, interpersonal relationships, and work outcomes. *Journal of Applied Psychology, 85*(3), 407-416. doi: 10.1037/0021-9010.85.3.407
- Lincoln, J. R., & Kalleberg, A. L. (1990). *Culture, control, and commitment: A study of work organization and work orientations in the United States and Japan*. Cambridge, MA: Cambridge University Press.
- Lincoln, J. R., & Kalleberg, A. L. (1996). Commitment, quits and work organization: A study of U.S. and Japanese plants. *Industrial and Labor Relations Review, 50*, 738-760.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York, NY: Plenum Press.
- Loher, B. T., Noe, R. A., Moeller, N. L., & Fitzgerald, M. P. (1985). A meta-analysis of the relation of job characteristics to job satisfaction. *Journal of Applied Psychology, 70*(2), 280-289. doi: 10.1037/0021-9010.70.2.280
- Lord, R. G., & Maher, K. J. (1991). *Leadership and information processing: Linking perceptions and performance*. Boston, MA: Unwin Hyman.
- Lovely, S. (2004). Staffing the principalship: Finding, coaching, and mentoring school leaders: Association for Supervision and Curriculum Development.
- Lowe, R., & Vodanovich, S. (1995). A field study of distributive and procedural justice as predictors of satisfaction and organizational commitment. *Journal of Business and Psychology, 10*(1), 99-114. doi: 10.1007/bf02249273
- Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works: From research to results*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin, 108*(2), 171-194. doi: 10.1037/0033-2909.108.2.171
- McDermott, K., Spence Laschinger, H., & Shamian, J. (1996). Work empowerment and organizational commitment. *Nursing Management, 27*(5), 44-48.
- McFarlin, D. B., & Sweeney, P. D. (1992). Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. *Academy of Management Journal, 35*(3), 626-637. doi: 10.2307/256489
- McGee, G. W., & Ford, R. C. (1987). Two (or more?) dimensions of organizational commitment: Reexamination of the affective and continuance commitment scales. *Journal of Applied Psychology, 72*(4), 638-641. doi: 10.1037/0021-9010.72.4.638

- McKay, G. (1999). Back to school: A matter of principals, *Pittsburgh Post Gazette*. Retrieved from <http://www.post-gazette.com/regionstate/19990822principal1.asp>
- Meyer, J. P., & Allen, N. J. (1987). A longitudinal analysis of the early development and consequences of organizational commitment. *Canadian Journal of Behavioural Science*, *19*(2), 199-215. doi: 10.1037/h0080013
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, *1*(1), 61-89. doi: 10.1016/1053-4822(91)90011-Z
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage Publications.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *78*(4), 538-551. doi: 10.1037/0021-9010.78.4.538
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, *11*(3), 299-326. doi: 10.1016/s1053-4822(00)00053-x
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, *61*(1), 20-52. doi: 10.1006/jvbe.2001.1842
- Miskel, C., & Cosgrove, D. (1985). Leader succession in school settings. *Review of Educational Research*, *55*(1), 87-105. doi: 10.3102/00346543055001087
- Morgeson, F. P., Delaney-Klinger, K., & Hemingway, M. A. (2005). The importance of job autonomy, cognitive ability, and job-related skill for predicting role breadth and job performance. *Journal of Applied Psychology*, *90*(2), 399-406. doi: 10.1037/0021-9010.90.2.399
- Morris, J. H., & Steers, R. M. (1980). Structural influences on organizational commitment. *Journal of Vocational Behavior*, *17*(1), 50-56.
- Morrow, P. C. (1993). *The theory and measurement of work commitment*. Greenwich, CT: JAI Press.
- Morrow, P. C., & Goetz Jr, J. F. (1988). Professionalism as a form of work commitment. *Journal of Vocational Behavior*, *32*(1), 92-111. doi: 10.1016/0001-8791(88)90008-5
- Mowday, R. T. (1998). Reflections on the study and relevance of organizational commitment. *Human Resource Management Review*, *8*(4), 387-401. doi: 10.1016/s1053-4822(99)00006-6
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. New York, NY: Academic Press.

- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14*(2), 224-247. doi: 10.1016/0001-8791(79)90072-1
- Mueller, C., Wallace, J. E., & Price, J. L. (1992). Employee commitment. *Work and Occupations, 19*(3), 211-236. doi: 10.1177/0730888492019003001
- National Association of Elementary School Principals. (n.d.). NAESP fact sheet on the principal shortage.
- National Association of Secondary School Principals. (2011). *NASSP board position statement: Principal shortage*. Retrieved from <http://www.nassp.org/Content.aspx?topic=47100>.
- National Association of State Boards of Education. (2004). Policy update: Ensuring high-quality leaders for all schools. *Policy Information Clearinghouse, 12*(9).
- National Center for Education Statistics. (2002). Digest of elementary statistics. Washington, D.C.: Institute of Educational Sciences, U.S. Department of Education.
- National Commission on Excellence in Education. (1983). *A nation at risk*. Retrieved from <http://www2.ed.gov/pubs/NatAtRisk/index.html>.
- Noor, M. (2008). Shortage of principals is feared as a wave of retirements looms. *New York Times, 5*.
- Norris, D. R., & Niebuhr, R. E. (1983). Professionalism, organizational commitment and job satisfaction in an accounting organization. *Accounting, Organizations, and Society, 9*(1), 49-59.
- Nyhan, R. (2000). Changing the paradigm: Trust and its role in public sector organizations. *The American Review of Public Administration, 30*(1), 87-109.
- O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology, 71*(3), 492-499. doi: 10.1037/0021-9010.71.3.492
- Oplatka, I. (2010). Principals in late career: Toward a conceptualization of principals' tasks and experiences in the pre-retirement period. *Educational Administration Quarterly, 46*(5), 776-815. doi: 10.1177/0013161X10380905
- Oreg, S. (2003). Resistance to change: Developing an individual differences measure. *Journal of Applied Psychology, 88*(4), 680-693. doi: 10.1037/0021-9010.88.4.680
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Orozco, L., & Oliver, R. (2001, 7/1/2001). A lack of principals, *Los Angeles Times*, p. B17.

- Park, S. (2007). Relationships among managerial coaching in organizations and the outcomes of personal learning, organizational commitment, and turnover intention. In G. N. McLean (Ed.). United States -- Minnesota: University of Minnesota.
- Parker, S. K., Wall, T. D., & Cordery, J. L. (2001). Future work design research and practice: Towards an elaborated model of work design. *Journal of Occupational and Organizational Psychology*, 74(4), 413-440. doi: 10.1348/096317901167460
- Pedhazur, E. J. (1997). *Multiple regression in behavioral research: Explanation and prediction*. New York, NY: Harcourt Brace College Publishers.
- Perryer, C., & Jordan, C. (2005). The influence of leader behaviors on organizational commitment: A study in the Australian public sector. *International Journal of Public Administration*, 28(5/6), 379-396. doi: 10.1081/pad-200055193
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609. doi: 10.1037/h0037335
- Porter, S. R., & Whitcomb, M. E. (2003). The impact of contact type on web survey response rates. *The Public Opinion Quarterly*, 67(4), 579-588.
- Potter, L. (2001). Solving the principal shortage. *Principal*, 80(4), 34-37.
- Potterfield, T. (1999). *The business of employee empowerment*. London: Quorum Books.
- Pounder, D. G., & Merrill, R. J. (2001). Job desirability of the high school principalship: A job choice theory perspective. *Educational Administration Quarterly*, 37(1), 27-57. doi: 10.1177/0013161x01371003
- Price, J. L. (1997). Handbook of organizational measurement. *International Journal of Manpower*, 18(4/5/6). doi: 10.1108/01437729710182260
- Price, J. L., & Mueller, C. W. (1986). Distributive justice. In J. L. Price & C. W. Mueller (Eds.), *Handbook of Organizational Measurement* (pp. 122-127). Marshfield, MA: Pitman.
- Protheroe, N. (2001). *Attracting and retaining high quality people for the principalship: Problems and possibilities*.
- Quinn, T. (2002). Succession planning: Start today. *Principal Leadership*, 3(2).
- Randall, D. M. (1990). The consequences of organizational commitment: Methodological investigation. *Journal of Organizational Behavior*, 11(5), 361-378. doi: 10.1002/job.4030110504
- Randall, D. M., Fedor, D. B., & Longenecker, C. O. (1990). The behavioral expression of organizational commitment. *Journal of Vocational Behavior*, 36(2), 210-224. doi: 10.1016/0001-8791(90)90028-z
- Rayfield, R., & Diamantes, T. (2003). Principal satisfaction and the shortage of educational leaders. *Connections*, 5.

- Rebore, R. W. (2004). *Human resources administration in education: A management approach* (7th ed.). Boston, MA: Pearson/Allyn and Bacon.
- Reichers, A. E. (1985). A review and reconceptualization of organizational commitment. *The Academy of Management Review*, *10*(3), 465-476. doi: 10.2307/258128
- Reskin, B. (1993). Sex segregation in the workplace. *Annual Review of Sociology*, *19*, 241-270.
- Reyes, P. (1990). Individual work orientation and teacher outcomes. *Journal of Educational Research*, *83*(6), 327-335.
- Richer, S. F., Blanchard, C., & Vallerand, R. J. (2002). A motivational model of work turnover. *Journal of Applied Social Psychology*, *32*(10), 2089-2113. doi: 10.1111/j.1559-1816.2002.tb02065.x
- Riehl, C., & Sipple, J. W. (1996). Making the most of time and talent: Secondary school organizational climates, teaching task environments, and teacher commitment. *American Educational Research Journal*, *33*(4), 873-901. doi: 10.3102/00028312033004873
- Rosenholtz, S. J., & Simpson, C. (1990). Workplace conditions and the rise and fall of teachers' commitment. *Sociology of Education*, *63*(4), 241-257. doi: 10.2307/2112873
- Ross, C. E., & Reskin, B. F. (1992). Education, control at work, and job satisfaction. *Social Science Research*, *21*(2), 134-148. doi: 10.1016/0049-089x(92)90012-6
- Rugh, S. S. (2001). *Our common country: Family farming, culture, and community in the nineteenth-century midwest*. Bloomington, IN: Indiana University Press.
- Sánchez-Fernández, J., Muñoz-Leiva, F., & Montoro-Ríos, F. J. (2012). Improving retention rate and response quality in web-based surveys. *Computers in Human Behavior*, *28*(2), 507-514. doi: 10.1016/j.chb.2011.10.023
- Schlechty, P. C. (1997). *Inventing better schools: An action plan for educational reform*. San Francisco, CA: Jossey-Bass Publishers.
- Shaw, J., & Reyes, P. (1992). School cultures: Organizational value orientation and commitment. *The Journal of Educational Research*, *85*(5), 295-302. doi: 10.1080/00220671.1992.9941129
- Sheldon, M. E. (1971). Investments and involvements as mechanisms producing commitment to the organization. *Administrative Science Quarterly*, *16*(2), 143-150.
- Sherman, W. H. (2005). Preserving the status quo or renegotiating leadership: Women's experiences with a district-based aspiring leaders program. *Educational Administration Quarterly*, *41*(5), 707-740. doi: 10.1177/0013161X05279548
- Shore, L. M., & Wayne, S. J. (1993). Commitment and employee behavior: Comparison of affective commitment and continuance commitment with perceived organizational support. *Journal of Applied Psychology*, *78*(5), 774-780. doi: 10.1037/0021-9010.78.5.774

- Simpson, R. L. (1985). Social control of occupations and work. *Annual Review of Sociology*, 11, 415-436.
- Sims, H. P., Szilagyi, A. D., & Keller, R. T. (1976). Measurement of job characteristics. *Academy of Management Journal*, 19(2), 195-212. doi: 10.2307/255772
- Singelmann, J., & Mecken, F. C. (1992). Job autonomy and industrial sector in five advanced industrial countries. *Social Science Quarterly*, 73(4), 829-843.
- Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology*, 68(4), 653-663. doi: 10.1037/0021-9010.68.4.653
- Smith, H. L., & Watkins, L. E. (1978). Managing manpower turnover costs. *The Personnel Administrator*, 23(4), 46-50.
- Smith, R. A. (2002). Race, gender, and authority in the workplace: Theory and research. *Annual Review of Sociology*, 28, 509-542.
- Somers, M. J. (1995). Organizational commitment, turnover and absenteeism: An examination of direct and interaction effects. *Journal of Organizational Behavior*, 16(1), 49-58. doi: 10.1002/job.4030160107
- Sorensen, N. M. (1995). Measuring HR for success *Training and Development*, 49(9), 49-51.
- Southern Regional Education Board. (2008). *Developing and assisting effective, learning-centered principals who can improve schools and increase student achievement*. Atlanta, GA: SREB Learning-Centered Leadership Program.
- Sparrowe, R. T. (1994). Empowerment in the hospitality industry: An exploration of antecedents and outcomes. *Academy of Management Journal*, 17, 51-73.
- Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39(11), 1005-1016. doi: 10.1177/001872678603901104
- Spreitzer, G. M. (1992). *When organizations dare: The dynamics of individual empowerment in the workplace*. University of Michigan Retrieved from <http://proxy.lib.uiowa.edu/login?url=http://search.proquest.com/docview/303976719?accountid=14663>.
- Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal*, 38(5), 1442-1465. doi: 10.2307/256865
- Spreitzer, G. M. (1996). Social structural characteristics of psychological empowerment. *Academy of Management Journal*, 39(2), 483-504. doi: 10.2307/256789
- Spreitzer, G. M., Kizilos, M. A., & Nason, S. W. (1997). A dimensional analysis of the relationship between psychological empowerment and effectiveness, satisfaction, and strain. *Journal of Management*, 23(5), 679-704.

- Stage, F. K., Carter, H. C., & Nora, A. (2004). Path analysis: An introduction and analysis of a decade of research. *Journal of Educational Research, 98*(1), 5-12.
- Staples, L. H. (1990). Powerful ideas about empowerment. *Administration in Social Work, 14*(2), 29-42. doi: 10.1300/J147v14n02\_03
- Staw, B. M. (1980). The consequences of turnover. *Journal of Occupational Behavior, 1*(4), 253-273. doi: 10.1111/j.1467-6494.1980.tb00961.x
- Staw, B. M. (1982). Counterforces to change. In P. Goodman (Ed.), *Change in organizations: New perspectives on theory, research, and practice* (pp. 87-121). San Francisco, CA: Jossey-Bass.
- Steers, R. M. (1977). Antecedents and outcomes of organizational commitment. *Administrative Science Quarterly, 22*(1), 46-56. doi: 10.2307/2391745
- Stone, E. F., & Gueutal, H. G. (1985). An empirical derivation of the dimensions along which characteristics of jobs are perceived. *Academy of Management Journal, 28*(2), 376-296.
- Strauss, R. P. (2003). *The preparation and selection of public school administrators in Pennsylvania: Supply and demand and the effects on student achievement*. Paper presented at the 28th Conference of the American Educational Finance Association, Orlando, FL.
- Tabachnick, B. G., & Fidell, L. S. (1989). *Using multivariate statistics*. New York, NY: Harper Collins Publishers, Inc.
- Taber, T. D., & Taylor, E. (1990). A review and evaluation of the psychometric properties of the job diagnostic survey. *Personnel Psychology, 43*(3), 467-500. doi: 10.1111/j.1744-6570.1990.tb02393.x
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. *Personnel Psychology, 46*(2), 259-293. doi: 10.1111/j.1744-6570.1993.tb00874.x
- The Wallace Foundation. (2003). *Beyond the pipeline: Getting the principals we need, where they are needed most*. New York, NY.
- Thomas, K. W., & Tymon, W. G. (1994). Does empowerment always work: Understanding the role of intrinsic motivation and personal interpretation. *Journal of Management Systems, 6*, 39-54.
- Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An "interpretive" model of intrinsic task motivation. *The Academy of Management Review, 15*(4), 666-681. doi: 10.2307/258687
- Thompson, C. A., Andreassi, J. K., & Prottas, D. J. (2005). Work-family culture: Key to reducing workforce-workplace mismatch? *Work, family, health, and well-being*. (pp. 117-132). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Thompson, D. P., McNamara, J. F., & Hoyle, J. R. (1997). Job satisfaction in educational organizations: A synthesis of research findings. *Educational Administration Quarterly, 33*(1), 7-37. doi: 10.1177/0013161x97033001002

- Toppo, G. (2007). New Orleans: Looking for a few good principals, *USA Today*. Retrieved from [http://www.usatoday.com/news/education/2007-04-09-new-orleans-principals\\_N.htm](http://www.usatoday.com/news/education/2007-04-09-new-orleans-principals_N.htm)
- Tucker, P. D. (2003). The principalship: Renewed call for instructional leadership. In D. L. Duke, M. Grogan, P. D. Tucker & W. F. Heinecke (Eds.), *Educational leadership in the age of accountability: The Virginia experience* (pp. 97-113). Albany, NY: State University of New York Press.
- Turner, A. N., & Lawrence, P. R. (1965). *Industrial job and the worker*. Cambridge, MA: Harvard University Press.
- Tymon, W. G. (1988). *An empirical investigation of a cognitive model of empowerment*. (Temple University Doctoral dissertation), Temple University, United States -- Pennsylvania. Retrieved from <http://proxy.lib.uiowa.edu/login?url=http://search.proquest.com/docview/303724939?accountid=14663> ProQuest Dissertations & Theses (PQDT) database.
- University Council for Educational Administration. (2008). Implications from UCEA: The revolving door of the principalship. Austin, TX: University of Texas.
- Walster, E., Berscheid, E., & Walster, G. W. (1973). New directions in equity research. *Journal of Personality and Social Psychology*, 25, 151-176.
- Whaley, J., & Cox, C. (2002). *Developing the effective teacher: Hiring, evaluation, and retention practices for the school administrator*. Gaithersburg, MD: Aspen Publishers.
- Whitaker, K. S. (2001). Where are the principal candidates? Perceptions of superintendents. *NASSP Bulletin*, 85(625), 82-92.
- Whitaker, K. S. (2003). Principal role changes and influence on principal recruitment and selection: An international perspective. *Journal of Educational Administration*, 41(1), 37-54.
- Woods, A. M., & Weasmer, J. (2002). Maintaining job satisfaction: Engaging professionals as active participants. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 75(4), 186-189. doi: 10.1080/00098650209604928
- Yoon, J., & Thye, S. (2002). A dual process model of organizational commitment. *Work and Occupations*, 29(1), 97-124. doi: 10.1177/0730888402029001005
- Zahra, S. A. (1984). Antecedents and consequences of organizational commitment: An integrative approach. *Akron Business and Economic Review*, 15, 36-32.
- Zapata-Phelan, C. P., Colquitt, J. A., Scott, B. A., & Livingston, B. (2009). Procedural justice, interactional justice, and task performance: The mediating role of intrinsic motivation. *Organizational Behavior & Human Decision Processes*, 108, 93-105.
- Zhang, H. Y., & Agarwal, N. C. (2009). The mediating roles of organizational justice on the relationships between HR practices and workplace outcomes: An investigation in China. *International Journal of Human Resource Management*, 20(3), 676-693. doi: 10.1080/09585190802707482