Intermediate, Middle and Junior High School Principals' Perceptions of Contextual Influences on their Leadership Behaviors

A dissertation presented to
the faculty of
The Patton College of Education of Ohio University

In partial fulfillment
of the requirements for the degree
Doctor of Education

Colon T. Lewis
May 2015
© 2015 Colon T. Lewis. All Rights Reserved.
This dissertation titled
Intermediate, Middle and Junior High School Principals' Perceptions of Contextual
Influences on their Leadership Behaviors

by

COLON T. LEWIS

has been approved for
the Department of Educational Studies
and The Patton College of Education by

Aimee Howley
Professor Emeritus of Educational Studies

Renée A. Middleton
Dean, The Patton College of Education
Abstract

LEWIS, COLON T., Ed.D., May 2015, Educational Administration

Intermediate, Middle and Junior High School Principals' Perceptions of Contextual Influences on their Leadership Behaviors

Director of Dissertation: Aimee Howley

The role of context in shaping principals’ leadership has been operationalized in this study as their allocation of time to three leadership domains. A cross-sectional survey design was utilized to measure the current self-reported practices of intermediate, middle and junior high school principals in the state of Ohio.

Findings from this study determined that locale did not have a significant association with the amount of time principals allocate to any of the leadership domains. Secondly, several of the exogenous variables under study were determined to be predictors of how principals allocated their time. Lastly, after controlling for level of bureaucracy and other contextual variables, principals in both urban and suburban locales allocated approximately the same amount of time to the leadership domains.
Dedication

I dedicate my dissertation to my wife Heather. Your support carried me through the program and I sincerely appreciate you being both mom and dad to our children while I pursued this degree.

I would also like to dedicate this dissertation to my children Cameron and Olivia. When I look at the two of you…anything seems possible.

Lastly, I would like to dedicate this to my mother Terry Lewis and grandmother Dorothy M. Brewer. You both taught me to finish what I’ve started and this dissertation is a testament to the many lessons I’ve learned from you.
Acknowledgments

I would like to acknowledge and thank Dr. Aimee Howley for persevering with me as my advisor/chairperson for the duration of this process. I am grateful for her guidance, tough love and encouragement.

The members of my dissertation committee, Dr. Gordon Brooks, Dr. Yegan Pillay, Dr. Dwan Robinson, and Dr. Aimee Howley, have generously given their time and expertise to help me better my work. I would like to thank them for their contributions and support.

Finally, I would like to acknowledge the many friends, family, and colleagues who supported my efforts and me over the years. There are too many of you to name. I know I’ve been fortunate for those who’ve always been loyal to my endeavors and me.
Table of Contents

Abstract ............................................................................................................................... 3
Dedication ........................................................................................................................... 4
Acknowledgments ............................................................................................................... 5
List of Tables ...................................................................................................................... 8
Chapter 1: Introduction and Problem Statement ................................................................. 9
  Introduction ..................................................................................................................... 9
  Problem Statement ........................................................................................................ 17
  Research Questions ....................................................................................................... 19
  Overview of Study Methods ........................................................................................ 20
  Relevant Definitions ..................................................................................................... 21
  Summary ....................................................................................................................... 24
Chapter 2: Review of Related Literature .......................................................................... 25
  Definitions of Instructional Leadership ........................................................................ 25
  Changes in the Role of the Principal ........................................................................... 27
  Federal Law and Changes in the Role of the Principal ................................................. 28
  Research and Changes in the Role of the Principal ...................................................... 31
  The Prescriptive Literature and Relevant Standards .................................................... 35
  Instructional Leadership and Academic Achievement: The Descriptive Literature .... 38
  Empirical Research on Bureaucracy and School Performance .................................... 40
  Gaps Between Theory and Practice ............................................................................ 41
  Barriers to Instructional Leadership ............................................................................ 43
  Studies of the Impact of Context on Principals’ Instructional Leadership ................. 46
  Summary ....................................................................................................................... 51
Chapter 3: Methodology and Research Methods .............................................................. 52
  Purpose ......................................................................................................................... 52
  Methodology ................................................................................................................ 53
  Research Design .......................................................................................................... 56
  Research Methods ....................................................................................................... 58
List of Tables

Table 1: Categorization of Principals' Activities .............................................................. 62
Table 2: Descriptive Statistics and Frequencies for Pilot Study Respondents ............... 71
Table 3: Descriptive Statistics for Dependent Variables: Complete Data Set ............... 88
Table 4: Descriptive Statistics for Dependent Variables: Subset ................................. 89
Table 5: Descriptive Statistics for Dependent Variables: Anonymous Subset .............. 89
Table 6: Descriptive Statistics and Frequencies for Actual Study Respondents: Complete Set .................................................................................................................. 90
Table 7: Descriptive Statistics and Frequencies for Actual Study Respondents: Subset .. 90
Table 8: Descriptive Statistics and Frequencies for Anonymous Respondents: Subset ... 90
Table 9: Descriptive Statistics and Frequencies for Actual Study Respondents: Complete Set .................................................................................................................. 91
Table 10: Descriptive Statistics and Frequencies for Actual Study Respondents: Subset 91
Table 11: Descriptive Statistics and Frequencies for Anonymous Respondents: Subset 92
Table 12: Descriptive Statistics for Actual Study Respondents: Complete Data Set ...... 93
Table 13: Descriptive Statistics for Actual Study Respondents: Demographic Subset .... 93
Table 14: Descriptive Statistics for Actual Study Respondents: Anonymous Subset ..... 93
Table 15: Frequencies for Locale of Study Respondents: Subset .................................. 94
Table 16: Descriptive Statistics for Contextual Variables: Subset ................................... 94
Table 17: ANOVA ........................................................................................................... 95
Table 18: ANOVA ........................................................................................................... 96
Table 19: Paired Samples T-Test for Three Leadership Domains ................................. 98
Table 20: Bivariate Correlations between School Size, Minority Percentage, Mobility Rate, SES, Political Leadership, Instructional Leadership, Managerial Leadership and Bureaucracy Scale ......................................................................................... 101
Table 21: Summary of Simultaneous Regression Analysis for Variables Predicting Time Allocated to Political Leadership ................................................................. 103
Table 22: Summary of Simultaneous Regression Analysis for Variables Predicting Time Allocated to Managerial Leadership ......................................................... 104
Table 23: Summary of Simultaneous Regression Analysis for Variables Predicting Time Allocated to Instructional Leadership ....................................................... 105
Table 24: Summary of Stepwise Regression Analysis for Variables Predicting Time Allocated to Instructional Leadership ....................................................... 105
Table 25: Summary of Stepwise Regression Analysis for Variables Predicting Time Allocated to Managerial Leadership ......................................................... 106
Table 26: Estimated Marginal Means ............................................................................. 110
Chapter 1: Introduction and Problem Statement

Introduction

The effective schools movement of the 1980s had an enduring influence on the field of educational leadership as a result of its empirical support for a new type of principal: one whose major focus is on instructional leadership. According to Lashway, “In the 1980s, ‘instructional leadership’ became the dominant paradigm for school leaders after researchers noticed that effective schools usually had principals who kept a high focus on curriculum and instruction” (Lashway, 2003, p. 1). Although findings from effective school studies showed that principals of such schools tended to concentrate their energies on leadership functions falling within the domain of instructional leadership, Hallinger (2003) noted that these studies made little reference to the instructional leadership responsibilities taken on by anyone other than the school principal. More recent research has examined the instructional leadership responsibilities assumed by school boards, superintendents, and teacher leaders.\(^1\)

Since the 1980s, conventional wisdom about the principal’s role has consistently construed instructional leadership as more important than managerial and political leadership. Leithwood and Montgomery (1982) argued that instructional leadership represented a role that unified the various functions of the principal. This role empowered the principal, as the single authority in the school, to make all decisions about curriculum and instruction. Cuban (1984) described instructional leaders as hands-on principals who

\(^1\) Cuban (1998), for example, claimed that as instructional leaders, superintendents assume ultimate accountability for improving student achievement. Others have found that teacher leaders contribute to increased school achievement (Lambert, 2002; Pate, James, & Leech, 2005), and a study conducted by the Laboratory for Student Success (2002) reported that school districts with large gains in student achievement had school boards that devoted more time to policy matters than to managerial matters.
were deeply engaged with curriculum and instruction and were not afraid of working
with staff to improve their teaching and students’ learning.

Nevertheless, despite what educational reformers claimed about the need for
principals to devote most of their attention to instructional leadership, empirical evidence
has shown that the role inevitably involves a range of tasks—some managerial, some
instructional, and some political. Responsibility for a school necessitates a certain amount
of attention to managerial tasks, and research confirms that managerial leadership has
traditionally dominated the work portfolios of principals. Portin, Alejano, Knapp and
Marzolf (2006), for example, found that, in the past, the responsibility for a school’s
operation tended to rest with one individual—the principal—and that person primarily
drew on *managerial* expertise to perform the job. These researchers also indicated that
over time, the principal’s role has changed to include more tasks that fall within the
political domain. According to Bamburg and Andrews (1990), the principalship entails
both managerial and instructional functions: principals act as coordinators, controllers,
and supervisors—functions associated with a managerial role—and they act as
developers and stewards of curriculum and instruction—functions associated with the
instructional leadership role. In 2002, Chan and Pool conducted a study comparing
principals’ priorities with the reality of their work lives. Despite their desire to be
instructional leaders, many of the principals in the study reported that routine managerial
tasks consumed a large amount of their time.

---

2 The ISLLC Standards for School Leaders include in the political domain the tasks that principals perform
in order to enable their schools to prepare good citizens and productive workers. The political domain also
includes activities that have an impact on policies at the district, county, state, and national levels.
Sometimes activities that entail engagement with the local community also fall within the political domain
(e.g., Cuban, 1988).
Studies of the political leadership practices of principals have focused primarily on micro-politics. This research suggests that principals who devote a lot of attention to school micro-politics may actually have a negative impact on the organizational cultures of their schools. Blasé (1990) conducted a study of the micro-politics of school organizations, concluding that the use of control and protective political strategies by principals had negative consequences for fundamental aspects of teachers’ work in the classroom and school. Datnow (2000) studied principals’ political leadership as it related to the adoption of school improvement models and concluded that the power relations surrounding the reform adoption often diminished initial buy-in and interest among educators. Furthermore, in his discussion of theories of educational management, Bush (2006) claimed that transactional leadership is the model most closely aligned with political leadership. Bush determined that transactional leadership does not create staff buy-in or commitment to the values and aims promoted by school principals.

Political leadership, however, is defined somewhat differently in the literature on the superintendency (Johnson, 1996). In that literature, the political realm relates less to within-school or within-district micro-politics and more to dynamics within the community (and sometimes the state and nation) as a whole. Moreover, some research on principals’ efforts to build strong alliances with their local communities suggests that this approach to political leadership does benefit schools (Brooks, 2009; FSG Social Impact Advisors, 2007; Sanders & Harvey, 2002).

In the face of the evidence available to date, one might reasonably conclude that (1) the role of principal involves some instructional, some managerial, and some political
activities; (2) the role of principal changes in response to changes in society; and (3) despite variability in role performance, principals who are able to devote more time to instructional leadership tend more often than others to lead schools toward improved educational effectiveness. In addition to these generalizations is an emerging consensus that certain conditions might enable and other conditions might constrain principals’ efforts to exercise instructional leadership (e.g., Hallinger & Murphy, 1986; Zheng, 1996). But which conditions offer the greatest affordances and which impose the greatest impediments has not yet been established.

**Influence of ascribed characteristics and contextual conditions on the work of school principals.** Several studies have shown that characteristics of principals themselves and characteristics of their schools and districts (i.e., the school and district context) influence how school principals exercise leadership. Zheng (1996) characterized on-going work along these lines in the following way,

> As discussions on principals’ instructional leadership role expand, the debates appear to grow to include not only the definition of principals’ role as instructional leaders and ways to improve the effectiveness of instructional leadership, but also the examination of the contextual factors that might influence principals’ instructional management behaviors. (p.1)

Among the personal characteristics that might influence leadership are age, gender, work experience, and education. Important contextual conditions might include locale and school size as well as minority percentage and socioeconomic status of the student population.
With respect to personal characteristics, gender seems particularly salient. For example, Appelbaum, Audet, and Miller (2002) found that the leadership styles typical of females differed from those typical of males, but they also found that the styles for both groups tended to contribute to leadership effectiveness. For this reason, these authors concluded that female leaders could learn from male leaders and vice versa. This finding corresponded to findings from earlier research, which Dobbins and Platz (1986) synthesized in their meta-analytic review of studies examining gender-based differences in leadership.

Studies showing the influence of other personal characteristics on leadership suggest the following patterns:

1. Age has not been studied extensively in relationship to leadership style or behavior, and some recent studies have shown it to have limited direct influence on these aspects of leadership (Barbuto, Fritz, Matkin, & Marx, 2007; Zacher, Rosing, & Freese, 2011). In her study of age and school leadership, Youngs (1988) found that school administrators over the age of 45 viewed themselves as managers and considered technical skills more important than human relations skills. Youngs also concluded that younger school leaders tended to value the human relations side of leadership.

2. Level of education may influence the followers’ perception of transformational and transactional leadership behaviors (Barbuto, Fritz, Matkin & Marx, 2007). Ballou and Podgursky (1994), for example, found that teachers gave principals with graduate degrees and specialized training in education administration
significantly lower performance ratings than they gave principals who did not have graduate degrees.

3. The impact of experience as an educator on leadership style or behavior has been studied to a very limited degree. In one of the few relevant studies, Ibrahim and Al-Taneiji (2012) discovered that principals in Dubai differed in style and effectiveness on the basis of gender and level of the school, but not on the basis of years of experience. In terms of perceived performance, Ballou and Podgursky (1994) determined that principals who had spent more than 15 years as teachers before taking on administrative positions received higher ratings than principals with less teaching experience prior to becoming school leaders.

With respect to contextual conditions, Blank (1987) claimed that school size, socioeconomic status of students, and degree of centralization were important contextual conditions affecting principals’ leadership:

The extent of leadership by principals in these areas could be analyzed according to three school and district conditions that affect leadership: school size (total enrollment), socioeconomic status of students (proportion of disadvantaged in the school), and district role in decisions affecting the school (centralization/decentralization). (Blank, 1987, p.71)

Other studies have also investigated the contextual factors that influence instructional leadership. In 1983, Lortie, Crow, and Prolman conducted a study of elementary principals in suburban school districts and arrived at the conclusion that principals in schools in lower socioeconomic status (SES) communities focused more of
their time than principals in higher SES communities on student discipline and on managing difficult staff relationships. By contrast, Hallinger and Murphy (1986) discovered that principals in high-poverty schools paid more attention than counterparts in affluent schools to curricular and instructional issues. Providing support for their 1986 findings, Hallinger, Bickman, and Davis’s 1990 study used structural equation modeling to show that the socioeconomic status of the school was a significant predictor of the effectiveness of its principal’s instructional leadership. A study conducted by Zheng in 1996 found that several contextual variables were associated with principals’ instructional leadership in both public and private schools: regional difference, school size, school’s grade level, percentage of minority enrollment, and percentage of students on free or reduced-price school lunches.

More recent studies have continued to examine the contextual conditions that influence principals’ leadership behaviors and their effectiveness. Goldring, Camburn, Huff, and May (2008), for example, conducted a study using cluster and discriminant analysis techniques to classify principals into three leadership groups: “Eclectic Leaders” (i.e., leaders who distribute their time evenly across leadership domains), “Instructional Leaders” (i.e., leaders who focus most of their time on curriculum and instruction), and “Student Leaders” (i.e., leaders whose work emphasizes interaction with students). Examining the contextual characteristics that predicted group membership, these researchers found that principals who were eclectic leaders tended to be located in low-poverty schools. Those who were student leaders were usually found in smaller schools,
and those who were predominantly instructional leaders were more prevalent in disadvantaged schools.

Whereas these studies have included some variables (notably school size and SES) that often co-vary with locale (e.g., smaller schools are often located in rural communities; low SES schools are often located in rural and urban, but not suburban communities), they did not include locale as a variable in its own right. A few studies, however, have investigated the association between locale and the character of principals’ work. A 1983 study conducted by Martinko and Gardner, for example, used observational methods to compare the character of principals’ work in elementary and secondary schools and in more and less urban schools; its findings showed that grade level and the degree of urbanization seemed to influence principals’ behavior. With respect to locale, the study suggested that principals in more urbanized settings spent more time on tasks in the managerial domain than they did on tasks in the instructional domain. Using data from the 1993–1994 School and Staffing Study, Zheng (1996) explored various conditions—including locale—as possible influences on teachers’ views of their principals’ effectiveness as instructional leaders. The study found that the suburban teachers were more likely than their central city counterparts to rate their principals as effective instructional leaders. Reporting somewhat similar findings from a study of the leadership activities of urban principals, Blank (1987) concluded that urban principals provided effective leadership in only a few areas, not all of which were instructional.
Research on the specific impact of locale on instructional leadership is limited, but a few studies have shown that locale does seem to have an influence on the nature of a principal’s leadership. Some researchers (Hallinger & Murphy, 1985, 1987; Hallinger et al., 1989; Rowan & Denk, 1984) have characterized the prevailing wisdom by commenting that effective leadership in a low enrollment rural school might look different from effective leadership in a suburban middle school or an urban high school. What is not clear in the extant literature is if locale predisposes a principal to operate primarily in the instructional, managerial, or political leadership domains.

**Problem Statement**

Even if researchers cannot agree on a common definition of instructional leadership (see Chapter 2), they agree it is important. According to a relatively robust body of research (e.g., Blank, 1987; Blasé & Blasé, 1999; Gaziel 2007; Glanz, Shulman, & Sullivan, 2007; Hallinger & Bickman, 1996), instructional leadership plays a critical role in student achievement although that role may be indirect.

Despite the importance of instructional leadership, principals may not spend a large amount of their time performing work relating to curriculum and instruction. Horng, Klasik, and Loeb (2009), for example, found that principals spent 30% of their school day on leadership activities such as student discipline and compliance requirements and only a little more than 10% of the school day on instructional leadership activities.³ This observational time-use study included as participants all high school principals in the

---

³ Other studies have also yielded similar results. After learning from these studies that principals had been spending only a third of their time on instructional leadership activities that strengthened teaching and learning, the Wallace Foundation funded the National SAM Innovation Project, which operated between 2002 and 2010 for the purpose of helping principals reverse this pattern.
Miami-Dade County Public School system. In addition to identifying how the principals spent the major part of their workday, the study also showed that principals who spent more time on organizational management activities worked in schools that had better student outcomes. This finding runs counter to the usual claim that spending more time on instructional and less time on managerial leadership will have a positive influence on student achievement.

Furthermore, as noted above, various contextual circumstances may influence the extent to which principals are able to devote time to instructional leadership. As the small body of literature on such influences suggests, locale, school size, and school SES may influence principals’ allocation of time to instructional leadership (Leithwood et al., 2010). This study builds on and adds to this body of literature by (1) combining relevant variables through the use of multiple regression models and (2) introducing perceived level of bureaucracy as a control variable. In theory, the amount of bureaucratization in a school district might play an important moderating role in the association between locale and instructional leadership because it influences the principal’s ability and willingness to take action. In schools and districts that principals view as highly bureaucratic, external forces govern action, leaving little room for principals to act autonomously to provide leadership of the sort they might prefer. Furthermore, such schools and districts may be more likely to be located in large cities than in suburban or rural communities. Hannaway and Talbert (1993), for example, found that principals of urban schools reported having about seven times less autonomy in terms of school policy, resource allocation, and personnel decisions than their suburban counterparts.
In addition to locale, other independent variables in this model with a probable connection to principals’ instructional leadership are SES and percent minority. Valentine and Prater (2011), for example, argued that school-level contextual factors such as SES influence the leadership needs of a school and hence may help determine the types of leadership that would be most effective in that school. In a study that aligns closely with the one I conducted, Horng, Klasik, and Loeb (2010) found that principals in schools with high percentages of African American and low-SES students spent more of their time on administrative tasks than principals in schools with lower percentages of African American and low-SES students. My study differed from the Horng and associates’ study because it (1) used a more concise categorization of leadership domains and (2) included perceived level of bureaucracy in the regression model.

With this prior literature in mind, I undertook this research study in order to understand better a role with which I am extremely familiar. Understanding it in a systematic way gave me insights that were inaccessible simply from the daily experience of being a principal. It also offered new insights to researchers and practitioners about some important contextual variables that seem to influence principals’ use of time.

**Research Questions**

As the discussion above explains, additional information about the role of context in shaping principals’ leadership—operationalized in this study as their allocation of time—requires attentiveness to a number of potential independent variables in consideration of relevant controls. The research questions listed below support a study
that, I believe, offers a meaningful contribution to the emerging body of knowledge on the role of context in shaping the character of principals’ work.

1. In consideration of exogenous variables related to schools (i.e., socioeconomic status, school size, minority percentage, and transience rate) and potentially salient characteristics of principals (i.e., gender and years of experience), to what extent does locale (urban versus suburban) account for the proportion of time school principals devote to instructional leadership, managerial leadership, and political leadership activities?

2. To what extent does a combination of exogenous variables related to schools—namely locale, school size, socioeconomic status, minority percentage, and transience rate—along with characteristics of principals—namely gender of the principal and the principal’s years of experience—predict the proportion of time principals devote to instructional leadership activities, managerial leadership activities, and political leadership activities?

3. In consideration of potentially salient control variables, is there a difference in the proportion of time principals devote to instructional leadership, managerial leadership, and political leadership activities across locales after controlling for perceived levels of bureaucracy?

Overview of Study Methods

For this study, I used a cross-sectional survey design. This type of survey design allowed me to collect data from a large number of participants during a relatively brief time period (Johnson & Christensen 2004). I administered the survey to urban and
suburban middle school principals in the state of Ohio. I chose to survey intermediate, middle and junior high school principals because of my belief that school leadership at this level is particularly demanding; in addition my primary work experience as a principal has been in middle schools.

The survey asked responding principals to estimate the percentage of time they typically spend on activities within the following leadership domains: managerial, instructional, and political. The survey also included an instrument that enabled each respondent to assess the extent to which his or her school district functions in bureaucratic ways. I also added to the data set contextual information from state and national sources pertaining to the schools at which responding principals work: the school’s locale, socioeconomic status, minority percentage, and transience rate. Once I collected data via the survey and imputed values for the contextual variables, I developed the multiple regression models that enabled me to answer the research questions

**Relevant Definitions**

- **Instructional Leadership:** According to the NAESP, “instructional leaders have six key roles: (1) making student and adult learning the priority; (2) setting high expectations for performance; (3) gearing content and instruction to standards; (4) creating a culture of continuous learning for adults; (5) using multiple sources of data to assess learning; and (6) activating the community’s support for school success” (NAESP, 2001, pp. 5-10). This variable was operationalized in the survey instrument as follows: the instrument provided illustrations of instructional
leadership activities and asked the respondents to estimate the percent of time they spent on these activities and others like them.

- **Managerial Leadership:** According to the Ohio Standards for Principals, managerial leadership entails allocating resources and managing “school operations in order to ensure a safe and productive learning environment” (Ohio Standards for Principals, 2005, p. 42). This variable was operationalized in the survey instrument as follows: the instrument provided illustrations of managerial leadership activities and asked the respondents to estimate the percent of time they spent on these activities and others like them.

- **Political Leadership:** According to the ISLLC Standards, political leadership requires the school administrator to “promote the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context” (CCSSO, 2008, p.28). Work in the political domain also requires an “understanding of the dynamics of policy development and advocacy under a democratic political system” (CCSSO, 1996, p. 20). This variable was operationalized in the survey instrument as follows: the instrument provided illustrations of political leadership activities and asked the respondents to estimate the percent of time they spent on these activities and others like them.

- **Locale:** In this study, locale relates to where a school is located in terms of the size of community and the proximity of the community to other metropolitan and urban areas. Two locales were of interest in this study: urban and suburban locales. Operational definitions for these two locales are provided below.
School Size: In this study, school size was defined as total enrollment as reported by the Ohio Department of Education.

Intermediate, Middle and Junior High School: In this study, these schools include a low grade of 4th or 5th or 6th and a high grade of 8th.

Perceived Levels of Bureaucracy: In this study, perceived level of bureaucracy is a construct relating to the extent to which organizational policies and procedures remain inflexible in face of varying conditions and needs and, as a result of their inflexibility, restrict the actions and opinions of those members of the organization who enforce them as well as those who carry them out. This variable was operationalized using Alkadry and Nyhan’s (2005) scales, which measure (a) Formalization, (b) Belief in Policy Objectivity, (c) Perception of Empowerment, (d) Bureaucratization, (e) Regard for Citizen Opinions, and (f) Regard for Responsiveness. Each scale includes items with response choices provided as seven-point Likert-type scales. I used data from the pilot test to determine if each scale should be included in the regression model as a distinct variable or if scores on the scales can be aggregated to produce a single, global measure.

% Minority: The percent of students who belong to race/ethnic groups other than White, non-Hispanic at the school level as reported by the Ohio Department of Education.

Socioeconomic Status: School level percentage of free and reduced-price lunch eligibility as reported by the Ohio Department of Education.
• **Transience Rate**: The school level mobility rate of students within a school as reported by the principal and reported to the Ohio Department of Education through the EMIS system.

• **Suburban School District**: School districts located in a place outside a major city but inside an urbanized area (> 50,000), operationalized as NCES locale codes 21-23.

• **Urban School District**: School districts located in a place inside an urban area and inside a major city (> 50,000), operationalized as NCES locale codes 11-13.

• **Gender**: Refers to the self-reported sex of the respondent.

• **Years of experience**: Refers to the number of years the respondent reports that he or she has been a principal.

**Summary**

This chapter provided a brief discussion of the influence of the effective schools movement on conceptualizations of the role of school principals. It also discussed the problem statement guiding the study as well as its research questions. It also provided a rationale for including certain individual and school context variables in the models predicting principals’ allocation of time to instructional, managerial, and political leadership. The chapter concluded with brief discussions of the study’s methods and relevant definitions.
Chapter 2: Review of Related Literature

To provide the theoretical and empirical grounding for this study, this chapter discusses the various definitions of instructional leadership that have appeared in the education literature over the past 30 or so years. These emerging definitions have come into being during a time when the role of principal has altered in response to various societal needs as well as regulatory requirements. The chapter considers the evolving role of the principal in light of these external forces. To introduce what the education community now says about instructional leadership, the chapter also includes a brief synopsis of the relevant prescriptive and descriptive literature. It then turns to a discussion of the gaps between instructional leadership theory and prevailing practice—a discussion that leads to a consideration of barriers to instructional leadership. The chapter next presents a summary of studies investigating the impact of school size and locale—two variables that the current study examined—on principals’ instructional leadership, and it concludes with additional observations regarding gaps in the extant literature.

Definitions of Instructional Leadership

In 2001, the National Association of Elementary School Principals (NAESP) defined instructional leadership in terms of the roles required for “leading learning communities” (p. 1). According to the NAESP, instructional leaders play six key roles:

Making student and adult learning the priority; setting high expectations for performance; gearing content and instruction to standards; creating a culture of continuous learning for adults; using multiple sources of data to assess learning; and activating the community’s support for school success (NAESP, 2001, p. 1).
This definition fits with what researchers have found to characterize leaders of effective schools. In 1987, for example, Hallinger and Murphy defined instructional leadership in terms of three functions: shaping the learning climate of the school, defining the school’s mission, and overseeing efforts to ensure growth in student learning. Flath (1989) also defined instructional leadership as the actions a principal uses in order to promote students’ growth in learning. King (2002) described instructional leadership in terms of deep involvement in the “core technology” of schooling (i.e., teaching and learning), carefully targeted delivery of professional development, and the use of data to make decisions (p. 62). Jenkins (2009) commented that principals need to free themselves of bureaucratic tasks in order to perform instructional leadership, and they also need to focus their efforts on improving teaching and learning. According to DiPaola and Hoy (2008), among others (e.g., Dufour, 2002; Lashway, 2003), these functions differ from those that principals traditionally have assumed: setting goals, allocating resources, managing school budgets and facilities, coordinating school activities, and evaluating teachers.

Despite some overlap in educators’ perspectives about what instructional leadership entails, there is no universally accepted definition of “instructional leadership.” Lashway (2003) commented, for example, that while educators appear to agree unanimously about the importance of instructional leadership, the construct remains a “loosely constructed paradigm lacking a clearly articulated theoretical foundation” (Lashway, 2003, p. 5).
Changes in the Role of the Principal

Like various other features of the educational system, expectations for school leaders change in response to broader changes in society. According to McPeake (2006), for example, the role of the principal in the 21st century bears little resemblance to the role of the principal in the 19th and much of the 20th centuries. Over time, this researcher claimed, the role of the principal has become progressively more difficult and complex to define.

Thomas (2001) explained that the purpose of schooling in the 19th century was to provide civic and character education. He also mentioned the strong connection between religion and what students learned in 19th century schools and described how this connection influenced expectations for public school leaders. He likened school leaders of the time to clergymen, explaining that the public expected both types of professionals to serve as exemplars of moral thought and action. Thomas also claimed that during this time, school leaders’ knowledge of Christian doctrine was more important than their academic preparation.

In a 1998 article, Murphy described the evolution of school leadership from the 19th to the second half of the 20th century. According to Murphy, four distinct periods characterized this evolution. In the “ideological era” (1820–1899), school leaders were educated people who provided guidance and support to students, teachers, and the public. These leaders received very little formal training in preparation for the role. The public nevertheless viewed these school leaders as authorities whose insights were important both to teachers and students.
During the “prescriptive era” (1900–1946), the public expected school leaders to possess and make use of the technical skills necessary for running their schools like efficient businesses. According to Murphy (1998), the technical focus of the principal’s role encouraged preparation programs to draw on the advice of seasoned practitioners.

In the “scientific era” (1947–1985) that followed, leadership experts encouraged principals to apply relevant theories to the solution of school problems. Their role was construed as primarily involving rational decision-making and planning. For this reason, leadership preparation focused on social science theories rather than on the advice of practitioners (Murphy, 1998).

The final era that Murphy (1998), described is the “dialectic period” (1986–present). In this period, leadership experts now expect principals to balance across three roles: (a) the instructional role, focusing primarily on the teaching and learning that is taking place at the school; (b) the political role, seeking consensus by working with various constituents; and (c) the managerial role, planning for and monitoring efficiency in the day-to-day administration of school operations. According to Murphy, leadership experts and the public expect a transformation both in the performance of principals and in the programs that prepare them. As discussion in the next sections shows, certain changes in the principal’s role are supported not only by research, but also by new legal requirements.

**Federal Law and Changes in the Role of the Principal**

Some regulatory changes have had marked and lasting effects on the role of the principal (e.g., Sharriff & Hoff, 2007). Notably, the Civil Rights Act of 1964 required
principals to play a role in ensuring that all children, irrespective of race or ethnicity, receive equal educational opportunities in public schools. This law altered the role of many school principals by requiring them to oversee school desegregation and programs to improve intergroup relationships. In the 1970s, PL 94-142 and Section 504 of the Rehabilitation Act of 1973 (PL 93-112) required principals to ensure that students who have disabilities receive a free education on par with their general education peers. It also should take place in the least restrictive environment” (PL 93-112).

Ernest Boyer, the United States Commissioner of Education in the late 1970s, described the ramifications of Public Law 94-142 for school leaders (Boyer, 1979). He explained that the law required principals to make reasonable efforts to locate children with disabilities, evaluate the learning needs of all children with potential disabilities, serve each child with disabilities in the least restrictive environment, periodically evaluate each child’s progress, and implement due process procedures to protect the rights of children with disabilities and their families. According to Reynolds (2010), districts’ failure to implement PL 94-142 carried a high price, namely the loss of federal funds. This circumstance put a great deal of pressure on principals as well as other school officials.

At the beginning of the 21st century, the reauthorization of the Elementary and Secondary Education Act (ESEA)—which gave it a new name, The No Child Left Behind Act—required principals to focus attention on school outcomes not only for their schools as a whole but also for different groups of students in their schools, such as economically disadvantaged students, English language learners, and students identified
as having disabilities. The reauthorization also required principals to take responsibility for making significant improvements to underperforming schools and for sustaining excellence in high-performing schools. According to Burch (2007) and Andreyko (2010), these responsibilities added a focus on data collection and analysis to the principal’s role.

As Sharriff and Hoof (2007) noted, the role of the principal has also been required to change in response to other legal requirements. For example, the Family Educational Rights and Privacy Act of 1974 implicated principals by requiring them to monitor and safeguard students’ educational records. The McKinney-Vento Act of 1987 placed expectations on principals regarding the education of children and youth whose families or other caregivers were homeless. The Student Safety and Violence Prevention Act of 2000 mandated that school personnel, including principals, protect students from harassment on the basis of perceived or actual sexual orientation. Additionally, in some states, laws require principals to protect students from harassment, intimidation, or bullying. For example, section 3313.667 of the Ohio Revised Code encourages school districts to form tasks forces to limit bullying and to organize programs and other initiatives to stop bullying (see also Trump, 2011, for commentary about a similar law in New Jersey).

As these illustrations suggest, federal, state, and local laws have exerted and continue to exert a notable influence on the work of the school principal. According to some commentators (e.g., Best Practices Briefs, 2004; Leithwood et al., 2004; The National School Climate Center, 2007), principals must plan strategically for and
implement policies and procedures that comply with a large number of mandates as their first step toward creating an environment that promotes student achievement.

Research and Changes in the Role of the Principal

According to educational historians, the effective schools research of the 1970s resulted in new, empirically grounded understandings about the principal’s role (e.g., Brookover & Lezotte, 1979; Edmonds, 1982; D’Amico, 1982; Purkey & Smith, 1982). In a variety of professional publications from that time period, advocates of effective schools encouraged principals to alter their priorities and, through such changes, to become “effective” principals (e.g., Clark, Lotto, & McCarthy, 1980; Edmonds, 1981). Brookover and Lezotte (1979), for example, claimed that principals’ effectiveness involved providing instructional leadership, enforcing strict discipline, taking responsibility for students’ learning of basic skills, and guiding teachers in the creation of a focused and business-like learning environment. Edmonds (1982) included instructional leadership as one of the seven variables correlated with school effectiveness. He found that in effective schools, principals developed an academically focused mission and then shared it with all stakeholders. He also reported that effective principals developed school policies that advanced the school’s academic mission and also helped teachers learn and make use of classroom practices designed to improve student achievement.

Other studies from that era also concluded that certain changes in the principal’s role would enable these administrators to serve as their schools’ instructional leaders and thereby to improve their schools’ performance. Hallinger and Murphy (1985), for example, listed the following practices as important to this new role: promoting a positive
learning climate school-wide, managing the instructional program, and defining the school’s mission. These authors further described the role of instructional leader by specifying the functions it would entail: outlining a vision for school improvement, sharing the school’s vision and goals with stakeholder groups, conducting classroom observations, aligning instruction to state standards and other key curriculum documents, protecting instructional time-on-task, leading a learning community, managing visibility, analyzing data regarding student growth and development, providing incentives for student growth, and motivating all school participants to work toward the improvement of students’ academic performance.

The recommendations of effective-schools researchers became even more insistent after the 1983 publication of *A Nation at Risk* (Department of Education, 1983). This report blamed schools for low student performance, citing various statistics about purported educational failures to support its claims. The report included five recommendations for change with direct relevance to the role of the principal: (a) strengthened graduation requirements, (b) more rigorous standards, (c) increased time devoted to teaching the basics, (d) higher standards for teacher licensure and performance, and (e) increased educational accountability (p. 5).

Guthrie and Springer (2004) described the legacy of the report as a paradigm shift in policy makers’ ways of thinking about schools. Prior to the report, policy makers focused on matters relating to educational inputs (e.g., resources, teacher qualifications); after the report, they began to focus on educational outcomes. These authors described the reforms prompted by the report in terms of three phases (or waves) of change. The
initial phase included efforts to increase the rigor of standards: curriculum standards, graduation standards, and college-entry standards. The second phase focused on systemic change—either in terms of large-scale school improvement programs or the shift to market-based schooling (e.g., vouchers, choice, and charter schools). The final phrase was still underway in 2004, according to Guthrie and Springer, and it entailed the heightened involvement of the federal government in ensuring school accountability.

According to some commentators (e.g., Lunenburg, 2010), effective-school research inspired the “quality” movement in education, which focused on using data to foster school reform. Some advocates of this approach (e.g., Bonstingl, 1992; Lunenburg, 2010; Schmoker, 1992) drew on the ideas of Deming, whom many consider to be the father of “total quality management” (TQM) in industry. In the industrial context, total quality management involves 14 key principles, which, according to Lunenburg, reflect the assumption that employees want to perform optimally and will take steps to ensure continuous improvement of their performance. When advocates applied TQM to education, they attempted to draw parallels between industrial and educational production. According to Lunenburg (2010), Deming’s approach supported the following school practices: outcomes based-education, cooperative learning, site-based management and team-teaching.

The focus on outcomes led to the use of another TQM-inspired approach: The Malcolm Baldridge Education Criteria for Performance Excellence (Walpole & Noeth, 2002). According to Walpole and Noeth (2002), the Baldridge system emphasizes seven strategies that schools can use for ongoing self-assessment in support of improvement
efforts. These strategies are: monitoring organizational performance; managing core processes; focusing on faculty and staff; attending to relevant information that is analyzed in meaningful ways; focusing on student, stakeholder, and market needs; and deploying procedures for strategic planning and leadership.

In addition to its focus on data-based school reform, research from the early 2000s supported principals’ use of a distributed form of leadership (Mayrowetz, Murphy, Seashore Louis, & Smylie, 2009; Supovitz, 2000). One of its foremost advocates, Spillane (2005) described distributed leadership as a school-wide or district-wide practice of sharing leadership functions—a practice resulting from interactions among school administrators, followers, and their context. This approach to leadership requires all members of a school or district team to direct their energies toward accomplishing a focused set of goals, identifying and learning how to use effective instructional strategies, and holding one another accountable for using those strategies (Marzano, McNulty, & Waters, 2005). In addition to requiring teamwork and the structural arrangements that support such teamwork, distributed leadership also requires certain actions on the part of the principal. According to Supovitz (2000), these actions include reinforcing the school mission, visiting classrooms, talking to students about their work, arranging professional development opportunities for staff, analyzing relevant data, using data for instructional and strategic planning, and monitoring the use of effective instructional practices.

One important project with relevance to principals’ instructional leadership was sponsored by the Wallace Foundation (2002). This project, known as the SAM (School Administration Manager) Project, was designed to help principals devote more time to
instructional leadership. The SAM process involved the following procedures: training of others who can take on some managerial responsibilities and thereby protect the principal’s time, collection of data about how a principal currently spends his or her time, on-site training and coaching of principals and their staffs, and use of a cloud-based calendar system. The training and coaching provided by the project worked to strengthen the principals’ ability to promote high-quality teaching. According to the Wallace Foundation, the SAM process offers an effective way to help principals reallocate time on behalf of the school’s instructional mission.

**The Prescriptive Literature and Relevant Standards**

Over the years, researchers and school reformers have provided many recommendations for practices that promote instructional leadership. Some of these recommendations have been put forth as instructional leadership models. Hallinger and Murphy (1985) developed one of the most popular of these models; it implicated reform practices in three dimensions of the principal’s work: “defining the school mission, managing the instructional program, and [creating] a positive school climate” (Hallinger & Murphy, 1985, p. 4).

According to Hallinger and Murphy (1985), work to define the school’s mission involves conceptualizing and communicating the school’s goals. These authors claimed that the principal must take responsibility for ensuring that the school has clear, timely, and measurable goals whose focus is on the academic achievement of students. Hallinger and Murphy (1985) also maintained that principals should take responsibility for
communicating these goals clearly and frequently, so the goals become well-known in the school community and subsequently galvanize the community’s support.

To manage the instructional program, from Hallinger and Murphy’s perspective, the principal needs to evaluate and supervise instruction, oversee curriculum, and monitor students’ academic growth. And, from their perspective, to create a school climate supportive of learning, the principal needs to provide incentives for learning; support high-quality teaching; be visible within the school; create, implement and promote professional development; and place a high value on (and therefore protect) instructional time.

Alternative models of instructional leadership incorporate some of the same features (e.g., leadership practices) as those put forward in Hallinger and Murphy’s model, but they also include other leadership practices. For example, the model proposed by Blasé and Blasé (1999) recommends practices of reflective discussion, study groups, inquiry, and peer coaching and collaboration as critical for effective instructional leadership. Based on Madeline Hunter’s clinical theory of instruction, Bruss (1986) presented the model known as Effective Teaching and Supervision of Instruction (ETSI). This instructional leadership model requires the principal to focus on three features of instruction: its content, process, and change. The focus on content entails clinical supervision as a way to promote effective teaching. The focus on process involves the implementation of a carefully aligned professional development program that supports teachers as they work to improve the effectiveness of instruction. The focus on change
entails efforts to monitor the practices of professionals—both teachers and principals—to ensure that their practices are responsive to new approaches to instruction.

A more recent model of instructional leadership proposed by Hoy and Hoy (2009) differs in some ways from earlier models. These authors propose that principals who aspire to be instructional leaders must first develop a school climate that is supportive of the implementation of effective instructional practices. Rather than relying on direct efforts to impose change, Hoy and Hoy’s approach is based on the belief that change requires teachers to collaborate. Such collaboration promotes a collegial professional culture, which in turn helps teachers increase their personal and collective efficacy. Teachers with greater efficacy not only use more effective practices, but also shape a learning environment that focuses primarily on students’ learning.

Following publication of various studies linking the principals’ instructional leadership to school improvement and early models describing how principals’ practices ought to change, educational organizations and state departments of education began to develop prescriptions (in the form of recommendations and standards) to guide the work of principals. For example, the frameworks established by the National Association of Elementary School Principals in 2001, the Interstate School Leaders’ Licensure Consortium in 1996, and the state of Ohio’s Standards for Principals in 2005 all make reference to many of the instructional leadership functions highlighted in Hallinger and Murphy’s (1985) and more recently in Hoy and Hoy’s (2009) models.
Instructional Leadership and Academic Achievement: The Descriptive Literature

According to many research studies, instructional leadership is important because it helps promote high student achievement. As a result of her review of the empirical research on instructional leadership, Chell (1995), for example, arrived at the conclusion that the principal is the single individual in a school who can have the greatest impact on student achievement because he or she is responsible for monitoring the types of instruction that teachers provide. Although the principal does not spend as much time with the students as does the classroom teacher, the empirical literature indicates that he or she plays a critical role in providing an environment that is supportive of student learning. The studies in Chell’s review tended to provide results similar to those reported by Hallinger and Heck (1998) in their review of 40 empirical studies on educational leadership from 1980 to 1995. Both reviews found that the influences of school leadership on student performance were evident, but often indirect.

In a more recent review of the empirical research on instructional leadership, Leithwood, Seashore Louis, Anderson, and Wahlstrom (2004) reached conclusions similar to those reported by Chell (1995). These authors reviewed 180 empirical studies conducted in nine states and 45 school districts—all of which focused on the association between instructional leadership and student achievement. The authors concluded that, overall, the studies demonstrated that the leadership provided by the principal was second only to the quality of classroom instruction in accounting for schools’ influence on student achievement.
As noted above, some studies suggest that principals’ influence on student achievement is indirect. Witziers, Bosker, and Kruger (2003), for example, conducted a meta-analysis of studies focusing on the principal’s impact on the achievement of students. They included 37 studies in the meta-analysis—all of which had been conducted between 1986 and 1996. Their analysis suggested that principals have an indirect impact on the achievement of students through their monitoring of the educational environment. These authors defined “educational environment” in terms of the organization and culture of the school, particularly as these contextual features of the school influence teachers’ behavior and classroom practices. In a five-year study of 180 elementary, middle, and secondary schools in 43 school districts across nine states, Leithwood and associates\(^4\) (2010) also found that the influence of the principal was indirect. Their study suggested that principals influence instructional practice, which in turn influences student achievement.

Ross and Gray (2006) conducted a path analysis using data from 205 elementary schools and found no statistically significant direct influence of leadership on student achievement. The indirect influence of leadership, according to this research, occurred as a result of the direct impact that principals’ leadership has on teachers’ efficacy. According to Ross and Gray, the kind of efficacy that had the strongest impact on student achievement was teachers’ increased commitment to school-community partnerships.

In summary, the relevant empirical literature suggests that principals’ leadership does contribute to student achievement, though probably indirectly through its influence on school culture, teachers’ practices, and teachers’ feelings of efficacy. The question of

\(^4\) Seashore Louis and Leithwood referenced this study in three different articles.
whether principals’ leadership can contribute directly to increased student achievement is still a subject of debate (e.g., Hallinger & Heck, 1998; Leithwood & Jantzi, 2010).

This conclusion is somewhat more hopeful than the one reached by Hallinger (2008) following his comprehensive review of research on school leadership using the Principal Instructional Management Rating Scale – research taking place over a 25 year period. The review included 119 studies conducted between 1983 and 2008. According to Hallinger, 36 of the studies examined the association between instructional leadership and student performance. He concluded that the methodological problems with the vast majority of these studies would have obscured the indirect influence of principals’ leadership even if such influence had existed. Other prominent researchers such as Cuban (1988) and Leithwood (2004) have also questioned the technical adequacy of studies trying to quantify the effects of principals’ leadership on student achievement. From the perspective of these researchers, contextual variables are so complicated and changeable that their influence might in some cases obscure and in some cases exaggerate the contributions of principals’ leadership to the academic achievement of students.

**Empirical Research on Bureaucracy and School Performance**

Some research has examined the effects of bureaucracy on school outcomes. Smith and Larimer (2004) found that school district bureaucracy is negatively associated with some measures of student achievement, such as standardized tests, but positively associated with other measures, such as dropout rates and attendance.

Other research supports the different conclusions from those offered by Smith and Larimer (2004). For example, Meier, Polinard, and Wrinkle (2000) determined that poor
school performance contributes to growing bureaucracy and not the reverse. The same researchers also claimed that bureaucracy increases as schools take actions designed to improve school performance.

Krueathep (2011) argued that the relationship between school bureaucracy and school outcomes is complicated. He concluded that the relationship may either be positive or negative depending on the task environment in which the school operates.

Gaps Between Theory and Practice

Although empirical research demonstrates the contribution of instructional leadership to both teacher efficacy and student achievement and prescriptive literature enjoins principals to practice this form of leadership, a number of studies suggest that significant barriers make this prescription difficult for many principals to follow (Hallinger & Murphy, 1987; Poirier, 2009). Cuban (1983), for example, argued that despite the findings of studies on instructional leadership, the realities that principals confront require them to act in ways that make practical sense. According to Cuban, “There is … an irreconcilable tension between empirical research … and daily decision-making by practitioners who are driven by circumstances to act and anxious to locate their decisions in a technical rationality often found wanting” (p. 4).

Providing a similar perspective to that voiced by Cuban, various other education researchers and commentators have presented evidence of and offered commentary on the theory-practice gap. Lyons and Algozzine (2006), for example, noted that, despite recommended leadership practices, most principals devote a great deal of their attention to managing their schools and to pupil behavior, particularly in view of concerns about
school security and safety following the Columbine incident. Similarly, Glanz, Shulman, and Sullivan (2007) claimed that, given their many non-instructional duties, principals often do not have the time to undertake continuous and meaningful instructional supervision.

According to Walker, “the increase in the principals’ responsibilities and the incongruence between what instructional leaders want to do and have time to do create serious consequences for [schools] leaders and their work in making a difference in … student improvement” (Walker, 2009, p. 214) Sharing a similar perspective, Van De Valk (2011) argued that (a) theories about instructional leadership do not always fit with real-world issues facing school leaders and (b) this disconnect has caused mistrust between practitioners, on the one hand and researchers, theorists, and professors, on the other. Murphy and Forsyth (1999) argued that principal preparation programs contribute to the gap between theory and practice.

Although this gap causes some to question the value of theory, others find the theories useful but difficult to implement because of significant barriers within schools and districts. Cuban (1988) believed that the political and managerial obligations of school principals often prevent them from devoting the majority of their time to instructional leadership. Hallinger and Wimpelberg (1992) stated that principal preparation programs that espoused a “one size fits all” model of instructional leadership were directly at odds with the leadership activities of principals in schools that differ in terms of students’ needs, available staffing, and size. Some empirical research has examined these barriers, and the section below presents this literature.
Barriers to Instructional Leadership

An important basis for evaluating the recommendation that principals become instructional leaders comes from an examination of the various institutional barriers that keep this change from happening. Hallinger and Murphy (1987), for example, identified four obstacles that often prevent principals from engaging the work of instructional leadership. These barriers are: (a) principals’ limited knowledge about curriculum and instruction, (b) norms that sustain the emphasis on a managerial rather than a leadership role, (c) expectations of superintendents and district office personnel, and (d) the complexity of the principal’s role.

Hallinger and Murphy arrived at these conclusions through the analysis of results from a study they conducted in a suburban California school district. They used the Principal Instructional Management Rating Scale to collect data about 10 elementary school principals. In addition to the 10 principals, the respondents included 104 teachers and three district office supervisors. Analysis of the data collected from the survey and interviews with participants pointed to emergent themes that included the four barriers listed above.

In addition, these researchers’ examination of the relationship between instructional leadership and a set of organizational variables revealed that school size was the only variable consistently associated with principals’ instructional leadership behavior on consistent basis. Principals of smaller schools were more likely than principals of larger schools to focus on instructional leadership. In discussing the four barriers, Hallinger and Murphy (1987) suggested that principals’ tendency to view
themselves as experts in classroom teaching as a result of their prior teaching experience 
exacerbated the impact of their actual lack of relevant knowledge about curriculum and instruction. As these authors noted, classroom teaching experience does not always equate to effective instructional leadership.

A somewhat more recent study conducted by the National Association of Secondary School Principals (2001) also provided insights about barriers to principals’ use of practices associated with instructional leadership. To gather data, the association administered a national survey to 3,359 high school principals. Their questionnaire asked principals about what they saw as priorities for and barriers to their performance of the leadership role. The respondents identified a number of conditions that, from their perspective, constituted barriers to instructional leadership: the need to resolve issues with parents, the amount of time required to make connections to the community, the large number of discipline problems they had to deal with, the need to oversee facilities management, excessive paperwork, the lack of financial resources, and the difficulty in finding time for instructional leadership with so many other job responsibilities.

Findings from an even more recent case study also pointed to similar barriers. Poirier (2009) conducted the study in an urban part of western Canada, collecting data from both teachers and the principal at one elementary school. The aim of the study was to contrast teachers’ perceptions about the principal’s instructional leadership with the principal’s own perceptions. To collect data the researcher used a questionnaire as well as interviews. Findings from a content analysis of the data revealed some differences in the ways teachers, as compared to the principal, perceived barriers to instructional leadership.
Overall, however, the analysis supported the salience of four categories for organizing participants’ perceptions: barriers to and facilitators of instructional leadership, characteristics of an instructional leader, definition of instructional leadership, and the supports to instructional leadership that principals need (Poirier, 2009). Populating the category “barriers to and facilitators of instructional leadership” were quotes from teachers that made reference to four barriers: personal qualities of the principal, characteristics of the teaching staff, support from central office administrators, and lack of time.

With regard to personal qualities of the principals, Poirier (2009) determined the teachers saw several impediments to instructional leadership: a lack of appropriate education or professional training, poor communication skills, and difficulties in maintaining productive interpersonal relationships. The teachers reported that characteristics of the teaching staff might also limit the extent to which a principal could function effectively as an instructional leader. In particular, they mentioned the lack of collegiality and an unsupportive disposition toward the principal. The teachers said that a lack of guidance from central office administrators regarding expectations for leadership and team building also proved to be a problem. Poirier (2009) concluded that, from the perspective of the teachers, lack of time represented another significant barrier to instructional leadership. Notably, they believed that the principal did not have enough time to complete all of the managerial duties required in addition to collaborating with teachers.
Based on his analysis of responses from the principal, Poirier (2009) identified two barriers, which the teachers had also identified: lack of support from the central office and lack of time. In addition to these two barriers, the principal identified lack of resources as a third impediment.

Overall, the research on barriers to instructional leadership confirms their existence. Although each relevant study conceptualized these barriers somewhat differently, they all concluded that the managerial nature of the job kept principals from devoting large amounts of time to instructional leadership. In some of the studies, moreover, principals’ lack of up-to-date knowledge about effective instruction challenged their ability to be effective instructional leaders even when they had time to serve in that capacity.

**Studies of the Impact of Context on Principals’ Instructional Leadership**

Many practitioners and researchers would agree that contextual factors such as locale and school size influence the manner in which principals carry out their leadership responsibilities. Salley and associates (1979), for example, characterized the relationship between a principal and his or her work environment in the following way:

Principals are captives of their environments…The size of the school system, the size of the school, and number of grade levels in the school are organizational variables that influence the principal’s definition of his or her work… Ethnic and socioeconomic characteristics play a significant part in defining the work of the principals. (Salley et al., 1979, pp. 34-35)
The research on how context influences school leadership is extensive, building on Salley and associates’ early insight by identifying several contributing factors such as locale, school size, socioeconomic status, and percentages of minority students as influences on leadership. My study focused on locale in particular and included school size, SES, percent minority, and transience rate as control variables.

**Locale.** Erwin and associates (2009) synthesized research on the influences on principals’ leadership of the locale in which their schools reside. These researchers reported that, in general, urban principals seem to be confronted with more challenges than their suburban counterparts. The researchers recognized, moreover, that locale did not operate alone in creating these challenges. In urban locales principals often confront other challenges: low family SES, high minority percentages, inexperienced teachers, and increasing transience related not just to family dislocations but also to students’ decisions to matriculate in charter schools or to drop out of school altogether.

Findings from Zheng’s (1996) study suggested that the locale and associated conditions such as family SES and school size of public schools have a stronger association with the effectiveness of public school principals’ instructional leadership than with private school principals’ instructional leadership. Using data from the Schools and Staffing Surveys conducted by the National Center for Education Statistics, Zheng found that the patterns of association between contextual variables and leadership tend to be complex.

**School size.** One of the complexities making the effects of locale difficult to discern are covariates that typically accompany locale. For example, most urban districts
have larger schools than are typical in rural districts. Both urban and rural districts often enroll many students from low-SES families in contrast to circumstances in suburban districts. Although some researchers (e.g., Southworth, 2004) have concluded that school size impacts leadership irrespective of other covariates, others suggest that the influence of size is indirect—perhaps mediated by locale, SES, or other contextual conditions (e.g., Kaplan, 2011). Hallinger and Murphy’s (1985) study of 10 elementary school principals in suburban San Jose, California, however, is one that provided findings suggesting that school size mattered irrespective of locale. These researchers found that principals in small schools (mean size = 385 pupils) were more engaged with matters of curriculum and instruction than those in large schools (mean size = 600 pupils).

Kaplan (2011), by contrast, concluded from a study of the relationship between school size and principals’ governance that school size was not associated directly with principals’ leadership behavior. His study showed that other contextual factors (e.g., socio-economic status, principals’ gender, and principals’ experience) tended to moderate the relationship between school size and leadership behaviors.

**School socioeconomic status.** A review of the literature on the influence of school SES on principals’ management of schools yielded studies with mixed results. Hallinger and Murphy’s 1985 study indicated that there was no discernible difference in the instructional leadership of principals in high and low SES schools. A later study conducted by this same team, however, (Hallinger and Heck, 1985), found that principals in schools with higher percentages of low-SES students were more active as instructional leaders than were principals in schools with lower percentages of socioeconomically
disadvantaged students. A more recent study reported by Goldring and associates (2006) produced similar findings, providing evidence that principals in low-SES schools typically focus more attention on student personnel matters or instructional leadership than their counterparts in higher-SES schools.

O’Donnell and White (2005) reached the opposite conclusion regarding how principal leadership activities vary based on student socioeconomic status. Their study determined that the instructional leadership practice of defining the school mission—a practice that tends to promote high levels of student achievement—was more prevalent in schools serving higher SES students than in those serving lower SES students. The researchers also noted that one of the significant challenges faced by principals in low-SES schools was the tendency of such schools to have high teacher attrition rates. Trying to provide instructional leadership to a teaching staff that is constantly in flux is, according to these researchers, extremely difficult.

**Transience.** Little research has thus far examined the association between school transience and principals’ leadership. Nevertheless, student transience has a significant influence on some schools and therefore has potential implications for principals’ practice. Scherrer (2013), for example, found that student mobility had a negative impact on students’ academic achievement. When considering mobility as a mediator between a school’s SES and student outcomes, Scherrer (2013) also determined that mobility can harm not only the students who change schools, but also the schools they attend. Several other authors (e.g., Audette & Algozzine, 2000; Boon, 2011; Thompson, Meyers, &
Ohsima, 2011) have also reported that student mobility is negatively associated with academic achievement.

Because student transience is related to other school processes and outcomes, it may also play a role in determining the types of leadership that a principal exercises. I was unable to find any empirical research exploring such dynamics, however. The current study, therefore, provided an initial effort to fill this gap.

**Other contextual predictors.** Some research has demonstrated that other variables in addition to school size and SES also tend to influence principals’ leadership. For example, Martinko and Gardner (1983) found that grade-level configuration contributed to variations in principals’ leadership behavior.

Another relevant variable may be district size. According to Seashore Louis and associates (2010), as school district size increases so too does shared leadership. Interestingly, however, their findings suggested that even though greater sharing of leadership took place in larger districts, this arrangement did not contribute to principals’ self-efficacy. In fact, principals in larger districts had lower self-efficacy than those in smaller districts.

My study did not incorporate all of these other possible contextual predictors, however. The decision to include some contextual variables and not others reflected my interpretation of what the extant literature suggested might be the potential predictors with the greatest likelihood of having an influence on the leadership behaviors and practices of principals.
Summary

This chapter first discussed various definitions of instructional leadership. Then it turned attention to historical changes in the role of the principal as well as the way external forces such as federal regulations and professional prescriptions have shaped the role. Next, discussion focused on empirical literature relating to principals’ actual use of instructional leadership and barriers to their use of the practices associated with that approach. Finally, the chapter reviewed literature on the contextual features of schools and districts that appear to have an impact on principals’ ability to devote time to instructional leadership. This review showed that findings about the association between contextual features of schools and districts and principals’ use of instructional leadership practices were inconclusive.
Chapter 3: Methodology and Research Methods

Purpose

The purpose of this study was to examine the association between a school’s locale and the proportion of time its principal spends on instructional, managerial, and political leadership activities. The research questions guiding the study were:

1. In consideration of exogenous variables related to schools (i.e., socioeconomic status, school size, minority percentage, and transience rate) and potentially salient characteristics of principals (i.e., gender and years of experience), to what extent does locale (urban versus suburban) account for the proportion of time school principals devote to instructional leadership, managerial leadership, and political leadership activities?

2. To what extent does a combination of exogenous variables related to schools—namely locale, school size, socioeconomic status, minority percentage, and transience rate—along with characteristics of principals—namely gender of the principal and the principal’s years of experience—predict the proportion of time principals devote to instructional leadership activities, managerial leadership activities, and political leadership activities?

3. In consideration of potentially salient control variables, is there a difference in the proportion of time principals devote to instructional leadership, managerial leadership, and political leadership activities across locales after controlling for perceived levels of bureaucracy?
Methodology

This study sought answers to the research questions above by analyzing data from a survey of principals in urban and suburban school districts in Ohio. Babbie (1990); Fink, Alreck, and Settle (2004); and Creswell (2008), all established experts on survey research, agree that the purpose of this type of research is to collect information from or about people in an effort to describe or explain their behaviors, attitudes, or knowledge. According to Fink (2003), surveys are used for multiple purposes related to the generation of knowledge about the characteristics and needs of individuals, various dynamics among individuals in schools as well as other social settings, and other social phenomena. Surveys are also used for market research, to assess needs, and to evaluate programs.

Some survey research provides descriptive information. An example of survey research that might yield descriptive findings would be a survey of the parents of students in a particular school to determine their opinions about a new policy. Findings from such a study might provide evidence about parents’ levels of support for different features of the policy. Because the sample would include only parents at the one school, findings could not be generalized to parents anywhere else. But descriptive surveys can also yield generalizable information. For example, the Harris Poll provides an annual measure of how confident the American people are in the leaders of major United States institutions (http://www.harrisinteractive.com, 2010). One of its recent findings was that 27% of Americans have a great deal of trust in the current U.S. President and his staff. This level of confidence was lower than the previous 36% level of confidence reported in 2009.
Survey research can also be used for explanatory purposes, particularly when it focuses on relationships among or between variables. Jones and Howley (2009), for example, conducted a survey of superintendents to identify conditions that might predict the amount of time they spent on educational, managerial, and political leadership. The associations that the study revealed showed differences in allocation of time to leadership domains based in part on the size of the districts in which superintendents worked. This finding provided a tentative explanation for the observation that superintendents in some districts spend more of their time on managerial leadership than do superintendents in other districts.

The explanations that survey research can typically support are not definitive. According to Creswell:

Because survey researchers do not experimentally manipulate the conditions, they cannot explain cause and effect as well as experimental researchers can. Instead, survey studies describe trends in the data rather than offer rigorous explanations. (Creswell, 2008, p. 388)

Nevertheless, many research questions in the field of education cannot be answered through experimental research. This is more an issue of impracticality than impossibility. Survey research addressing such questions can suggest associations and, under certain conditions, support claims about causal relationships. Causal relationships can be inferred in some cases by examining the impact that an independent variable has on a dependent variable, particularly when appropriate statistical controls are incorporated into a statistical model (e.g., Babbie, 1990). Rea and Parker (2005), in their
book on designing and conducting survey research, for example, claimed that regression analysis is a suitable approach for examining influences of this sort. But research methodologists tend to be very cautious about making definitive causal claims on the basis of regression analyses using data collected from surveys.

In the current study, I used a survey to collect data that enabled me to make descriptive assertions about and investigate explanations for possible differences in the proportion of time that urban and suburban middle school principals devote to instructional, managerial, and political leadership activities. I asked principals to complete a questionnaire querying them about the activities in which they routinely engage. I was not able to manipulate the conditions under which principals work. Nevertheless, by accessing publicly available data about the respondents’ schools, I was able to use multiple regression models to describe relevant associations; and such associations might be viewed as having tentative merit in pointing to possible cause-and-effect relationships. In particular, I evaluated a theoretical model in which locale was positioned as a possible influence on the percentage of time principals devoted to instructional leadership even when degree of bureaucratization and other relevant contextual variables were controlled.

This chapter describes details about the methods used for conducting the study. It discusses the research design, the pilot study, the population that was surveyed, sample selection methods, the sample, the survey instrument, data collection procedures, and the methods that were used to analyze data. This chapter also considers issues related to the
validity of the study. Operational definitions of the variables included in the study were presented in chapter one.

**Research Design**

Survey research is intended to help researchers understand something about a specific population by gathering data from a representative subset of that population (i.e., a sample). In the case of this study, respondents from the population of intermediate, middle and junior high school principals provided insights into the way that leaders of urban and suburban schools in the state of Ohio allocate time to different categories of leadership activities.

Rea and Parker (2005) claimed that conducting a survey with a sample from a larger population is the most appropriate method for gathering self-report data that can then be used to describe (or explain) the characteristics of individuals or the nature of a social phenomenon in a particular population. Random sampling improves the ability of the survey researcher to generalize from results obtained from a sample to the larger population group from which the sample was drawn (Creswell 2008).

For this dissertation study, I used a cross-sectional survey design. A cross-sectional design provides a snapshot of a population at single point in time. This design enabled me to measure current self-reported practices of school principals. According to Babbie (1990), Fink (2003), and most recently, Creswell (2008), cross-sectional studies allow for the comparison of two or more groups in terms of practices, opinions, beliefs and attitudes. These authors also agree that, for a cross-sectional survey, data are collected at one moment in time from a sample chosen to represent some larger
population. In this study, the groups that were compared were urban intermediate, middle, and junior high school principals and suburban intermediate, middle, and junior school principals. Principals in both groups were employed in the state of Ohio.

In addition, the current study, which focused on the association between locale and principals’ self-reported allocation of time to leadership activities, might be characterized as a contextual study. According to Babbie (1990, p. 60), “collecting data about some portions of a person’s environment or milieu and using those data to describe the individual make up a contextual study, an examination of the individual’s context.” For this dissertation study, I obtained contextual data from the Common Core of Data (http://www.nces.ed.gov/ccd) and the Ohio Department of Education to identify the locale of each principal’s school (i.e., urban or suburban) as well as other relevant variables that I included in the regression model as predictor variables. The study also adapted a previously developed scale by Dr. Mohamad G. Alkadry to elicit from each respondent a measure of the degree of bureaucratization that he or she believed characterized his or her school district.

The study might be construed as contextual, primarily because I used the information it generated to describe and draw inferences about principals’ responses to the locale, socioeconomic status, transience rate, and so on of their districts. As noted earlier, the study was also explanatory because it answered research questions positioned to test theoretical models about the associations between variables related to school context and principals’ allocation of time.
Research Methods

This section of the chapter discusses the specific methods that I used to develop relevant instrumentation, conduct a pilot study, identify a purposeful sample, administer the survey, and analyze data from the survey. It is followed by sections of the chapter that present issues pertinent to the study’s validity.

Instrumentation. To understand the extent to which various conditions were associated with the reported proportion of time that intermediate, middle, and junior high school principals allocated to three domains of leadership: instructional, managerial, and political, I needed to operationalize these domains of leadership work by categorizing principals’ work activities into relevant domains. I selected these domains through a review of related literature, drawing in particular on the previous work of Jones and Howley (2009). In their study of the association among contextual variables, accountability pressures, and superintendents’ expenditure of time on different leadership activities, these authors categorized superintendents’ activities into three domains, as follows:

1. **Managerial:** This domain involves planning and administrative functions such as exercising authority over personnel, finance and facility decisions (p. 3).

2. **Educational:** This domain involves formulating the district’s vision with a focus on curriculum and instruction (p. 3).
3. **Political:** This domain involves negotiating with diverse interest groups to reach agreements about district policies, priorities, and resource allocation (p. 3).

My study used the same three domains but modified how the domains were defined. A review of policy documents providing standards for principals’ leadership served as the basis for defining the specific behaviors, functions, and practices that constituted each of the three domains.

In particular, I selected three relevant policy documents to determine whether or not the three domains of activity were descriptive of principals’ work. The first document was the Ohio Standards for Principals. This document was especially relevant because it represents Ohio’s expectations for the principals who were asked to respond to the questionnaire used to collect data for this study. The second document was the Interstate School Leaders Licensure Consortium’s Standards for School Leaders. This document was also highly relevant because it provides a set of standards for school leaders that 35 states have already adopted. Considering the large number of states that have adopted these standards, one might reasonably assume that the document incorporates commonly held understandings of the work U.S. principals are expected to perform. The last policy document that I used to help categorize principals’ work activities was the Alberta Ministry of Education’s Principal Quality Practice Guideline. I chose this document in order to gather perspectives on leadership expectations from

---

5 To determine the proportion of time spent on activities in each domain, I asked respondents to provide estimates of their allocations of time. I provided illustrative activities to give them a sense of the sorts of work that were included in each domain.
outside the United States. I am certain that other similar policy documents exist; however, I decided that the three documents (one representing the Ohio perspective, one representing the national perspective, and one representing the perspective from another nation) would provide a sufficient basis for categorizing the work activities of principals.

I used semantic content analysis to identify from each policy document the leadership activities that seemed to fit into coherent categories. According to Landauer, Foltz, and Latham (1998), semantic content analysis entails the process of identifying categories of meaning by seeking similarities in the way terms are used in the context of the documents in which they appear. With respect to the documents I reviewed, I found recurring words (not just recurring concepts) in all three documents, and I used these recurring words as the basis for categorizing the leadership activities. For example, all activities related to managerial leadership in the documents included the word “management” or “managing.” Standards or practices related to political leadership in each document referenced expectations about understanding and responding to communities and the broader social context. I created tables (see Appendices B through D, Tables B1-B3) to illustrate each policy document’s definition of leadership along with the standards or leadership dimensions that fell into each of the three activity domains: instructional, managerial and political.

I identified the activities in each domain that were present in all three documents and used them to represent the salient activities within that domain. I also examined Rayfield and Diamantes’ (2004) study, “Task Analysis of the Duties Performed in Secondary School Administration.” This study identified duties performed by principals
as described in textbooks and case studies—25 job duties in all. I did not add these 25 activities to the categorical lists that I developed from the policy documents, but I did compare the activities identified in the study with those in the lists. The activities on lists developed from the policy documents overlapped with all 25 of the general duties included on the list from the Rayfield and Diamantes study.

The final categorization of principals’ activities is presented in Table 1. Particularly noteworthy is the fact that no activities included in the policy documents were outliers with respect to the categorization scheme. In other words, all such activities fit into either the instructional, managerial or political activity domain.
<table>
<thead>
<tr>
<th><strong>Instructional Activities</strong></th>
<th><strong>Managerial Activities</strong></th>
<th><strong>Political Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating a school vision</td>
<td>Planning and administrative functions</td>
<td>Negotiating with diverse interest groups to reach agreements about policies, priorities and resource allocation at the school building level</td>
</tr>
<tr>
<td>Setting goals that embed high expectations</td>
<td>Exercising authority over personnel through the collective bargaining agreement</td>
<td>Meeting and collaborating with parents and outside social agencies to meet individual student and school-wide academic goals</td>
</tr>
<tr>
<td>Performance evaluations</td>
<td>Making facilities and financial decisions at the school building level</td>
<td>Staying abreast of political issues and changes in the political climate</td>
</tr>
<tr>
<td>Capacity building</td>
<td>Ensuring school safety and security</td>
<td></td>
</tr>
<tr>
<td>Classroom observations</td>
<td>Monitoring transportation operations</td>
<td></td>
</tr>
<tr>
<td>Professional development</td>
<td>Applying applicable school laws</td>
<td></td>
</tr>
<tr>
<td>Facilitation of professional learning communities</td>
<td>Corresponding via ground mail and email</td>
<td></td>
</tr>
<tr>
<td>Monitoring and supervising of instructional content</td>
<td>Preparing reports</td>
<td></td>
</tr>
<tr>
<td>Modeling and researching teaching practices</td>
<td>Overseeing food services at the school</td>
<td></td>
</tr>
<tr>
<td>Data analysis of instructional programmatic and student achievement data.</td>
<td>Monitoring the administration of assessments and reporting on student performance</td>
<td></td>
</tr>
<tr>
<td>Monitoring instructional methods and curriculum objectives</td>
<td>Tracking credits</td>
<td></td>
</tr>
</tbody>
</table>
Table 1 (continued)

<table>
<thead>
<tr>
<th>Leading the change process for continuous improvement</th>
<th>Establishing and enforcing rules for student conduct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing expectations for culturally responsive practices</td>
<td>Administering disciplinary sanctions</td>
</tr>
<tr>
<td>Selecting personnel through the hiring process.</td>
<td>Allocating resources</td>
</tr>
<tr>
<td>Guidance, intervention, enrichment, and remediation for all students</td>
<td></td>
</tr>
</tbody>
</table>

In addition to the question asking principals to estimate the percentage of time they devoted to activities in the three domains, the instrument included items to elicit information about the conditions that might influence principals’ allocation of time and that also might share variance with the independent variable of primary interest in this study, namely locale. I treated these independent variables as control variables in the multiple regression equations I used as a basis for answering the study’s research questions.

One of these control variables was principals’ perceived level of district bureaucracy. To measure this construct, I adapted a set of items selected from an instrument that Alkadry and Nyhan used in the 2005 study, “The Impact of Rational Organizations on Public Administrators: A Structural Equation Model.” I sought and received permission from Alkadry and Nyhan to use a modified version of their
These researchers operationalized the construct of perceived bureaucracy to reflect six latent constructs evident in the data they collected.

The constructs were: Formalization, Belief in Policy Objectivity, Perception of Empowerment, Bureaucratization, Regard for Citizen Opinions, and Regard for Responsiveness.

For the study, I used items measuring four of the six latent constructs that Alkadry and Nyhan’s instrument targets. According to these researchers, three latent constructs measure a more inclusive latent construct, which they termed, “Structural Enablers.” Below are definitions for these three constructs.

- **Formalization** relates to the tendency of organizations to make actions uniform and predictable by replacing individuals’ independent action with carefully scripted rules and protocols.

- **Belief in Policy Objectivity** deals with the extent to which organizational policies remain constant in face of varying interpretations and opinions of the administrators who enforce them.

- **Perception of Empowerment** is related to the degree of control that individuals feel they have or are subjected to in the decision making process in an organizational setting.

The researchers also reported that two other latent constructs combine to measure the more inclusive latent construct, “Personal Enablers.” Below are definitions for these two latent constructions:

---

6 The email giving permission is included in Appendix A.
- **Regard for Citizen Opinions** deals primarily with the respondents’ perceptions of how their organizations respond to input from third parties (e.g., clients and citizens). For example, school officials may believe they have more expertise in instructional decisions than parents.

- **Regard for Responsiveness** deals primarily with the respondents’ perceptions of how their organizations respond to input from third parties (e.g., clients and citizens). For example, schools that are more bureaucratic are less responsive to input from parents.

According to Alkadry and Nyhan (2005), the personal and structural enablers act in concert to predict the level of responsiveness that administrators are likely to show toward citizens. A principal’s response to the instrument, therefore, revealed the extent to which he or she felt empowered to be responsive or, conversely, the extent to which he or she believed that his or her responsiveness was constrained by the organization.

I modified the response categories in my adaptation of the instrument. The original instrument contained 26 items, each using a Likert-type scale with response choices from one to seven. I modified these response choices because recent research suggests that the best number of response categories for items on Likert-type scales is from four to seven (Lozano, Garcia-Cueto, & Muniz, 2008, p.1), and I thought respondents would find it easier to respond to four choices than to respond to seven choices.

**Instrument reliability and validity.** As noted above, the conceptual model on which the instrument was based links administrators’ responsiveness to citizens to two
constructs: personal enablers and structural enablers (Alkadry, 2000). According to Alkadry, moreover, these two constructs can be subdivided into constituent parts. The construct, “Structural Enablers” is composed of the following subordinate constructs: “Perception of Social Relations,” “Belief in Policy Objectivity,” and “Perception of Empowerment.” The construct, “Personal Enablers” is composed of the following subordinate constructs: “Regard for Citizens’ Opinions” and “Regard for Own Expertise.” In the report of his 2000 study, Alkadry explained that these constructs had not been verified through confirmatory factor analysis or other methods of establishing construct validity, and he called for additional research to examine the construct validity of each part of the model. Furthermore, Alkadry did not report reliability estimates for the scale or the subscales.

He did, however, use Structural Equation Modeling (SEM) to identify the constructs, and he implied that the use of this statistical technique contributed to the validity of the broader constructs and their constituent parts. In addition to identifying latent constructs, SEM also tests model fit through the use of multiple fit indices. Alkadry (2000) used three fit indexes to assess model fit: scaled chi-square test, type-2 index, and the comparative fit index. According to Alkadry, all three tests indicated that model fit was acceptable.

**Other independent variables.** I was also interested in one contextual variable, locale, that might be associated with principals’ allocation of time, but I did not need to include a question about locale on the instrument itself. Nor did I need to ask principals to supply information related to the contextual control variables that the study
incorporated. Rather, I obtained values for each of these control variables (i.e., socioeconomic status, percent minority, and transience rate) as well as for the predictor variable, “locale” from the Common Core of Data (NCES, 2010) and the Ohio Department of Education (2013). In addition to administering the scale measuring perceived bureaucracy, I also asked respondents to provide information about their gender and years of experience.

Socioeconomic status, percent minority, transience rate, school size, gender, years of experience and locale are the school-level contextual variables that I included in the model. These variables are specific to the context in which each of the respondents carries out his or her duties, and I imputed values for each of these variables into the study’s data set. Perceived level of bureaucratization is a principal-level variable (or set of related variables); I used Alkadry and Nyhan’s (2005) scales to measure this variable.

This combination of school-level and principal-level data was important to the study because it enabled me to explore how certain contextual conditions predict the principals’ allocation of time to various types of leadership activities. Although both school-level and principal-level data were included in the model, my data were not actually “nested” in such a way as to require the use of multi-level statistical analyses.

**Organization of items on the instrument.** I assembled the items on the instrument in the following sequence. The first part of the instrument included items that measured the dependent variables, namely the percentage of time that principals spent on political, managerial, and instructional leadership. The second part of the instrument measured perceived level of district bureaucracy by asking the respondent to indicate the
extent to which each condition accurately reflected the organizational culture and climate of his or her school district. The respondent was also asked to identify his or her gender and years of experience as a teacher, principal and total years in education. A total of 19 questions comprised this section of the instrument.

As noted previously, all other variables in the model that this study tested came from the Common Core of Data or the Ohio Department of Education. I imputed these data using Qualtrics, which is an on-line survey development and administration tool.

**Pilot study.** In order to improve the usefulness of the instrument, I conducted a pilot test in October 2013. The pilot test helped me determine if online administration was effective and if principals had any difficulty responding to the questions on the instrument. I also used data from the pilot test to calculate the reliability of the perceived level of bureaucracy scale as a whole as well as its subscales. The pilot questionnaire included additional items that allowed respondents to comment on the comprehensiveness of the items on the instrument, the readability of the items and instructions, and the ease of responding to the items. Responses to these additional questionnaire items helped me make modifications to the final instrument.

I piloted the instrument with a convenience sample of 95 principals who worked in rural Ohio school districts. Since the study itself focused on urban and suburban districts, principals in the pilot study were not part of the population sampled in the main study itself.

In an effort to produce the best possible instrument, I asked 1,081 rural principals to participate. An email asked the participants to complete the survey instrument...
(Appendix H) and to comment on ways to improve it by providing suggestions regarding ease of completion, ambiguity of items, and appropriateness of content.

One hundred seventy-seven of 1,081 possible participants opened up and began to respond to questions on the instrument, a number that represented a response rate of 16%. Ninety-five of 177 provided responses to all items on the instrument. The suggestions for improvement included comments on the wording of several items. I used these suggestions in order to make some relatively minor changes to the instrument.

I used SPSS to analyze participants’ responses to the pilot instrument. In addition to computing descriptive statistics, I conducted a reliability analysis to confirm findings previously reported about the scale that measured perceived bureaucracy, and I found that the items constituting the subscales that Alkadry had reported did not produce high internal consistency reliability (in other words, Cronbach’s alpha).

As a result, I used an iterative process with all items to remove those that detracted from overall scale reliability. This process enabled me to select from Alkadry’s instrument the 15 items with the greatest internal consistency. As noted previously, these 15 items each used a four-point Likert-type scale to enable respondents to indicate their extent of agreement with the statement presented in the item. Anchor statements for the four response choices were; 4 = “Not At All,” 3 = “Limited Extent,” 2 = “Moderate Extent,” 1 = “Great Extent.”

The 15 items constituting the final scale had an alpha reliability of .81. Results of the reliability analysis are included in Appendix I. The 11 items from the Alkadry instrument that were not used in this study came from each of the following latent
constructs: Formalization, Perception of Empowerment, Bureaucratization, Regard for Citizen Opinions and Regard for Responsiveness. They were not clustered in just one or two of the original subscales.

Other changes to the instrument were minimal, involving modifications to a few words in order to make the items fit better with the features of organizational life in schools and school districts. See Appendices E and F for more detailed information.

Another change to the instrument resulted from an insight about potential social desirability bias. In an effort to control for such bias, I eliminated headings from each of the activity categories. The logic behind the decision to eliminate the category headings was to prevent respondents from suggesting that the majority of their time (or at least a large proportion of it) was spent on activities in the instructional leadership domain. The current educational climate pressures administrators to spend most of their time on instructional leadership. So I was concerned that principals might respond to the items in ways that reflected their awareness of how they should be spending their time rather than how they actually were spending their time.

Descriptive statistics did not provide clear evidence of social desirability bias, however. Skewness data provided in Table 2 showed a concentration of scores bunched up on the low end of the scale for political leadership. This result is indicative of principals’ reporting that they allocate the least amount of their time to this leadership domain. The very slight negative skew for managerial leadership indicated the predominance of higher scores for this leadership domain. The skewness measure for the allocation of time to instructional leadership suggested that the distribution for time spent
on activities in this domain was not skewed. Given the prescription in the professional literature that principals should focus on instructional leadership, a circumstance that might lead to skewed findings, the resulting non-skewed distribution provided some evidence that social desirability bias did not have a powerful influence on principals’ responses to the item about allocation of time to instructional leadership.

The data in Table 2 below show that principals reported allocating their time primarily to the managerial domain, followed by the instructional and political leadership domains respectively. Whether the finding that principals spend 40% of their time on instructional leadership reflects actual practice or an exaggeration is unknown. But I decided to be prudent, nonetheless, and remove category labels.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.397</td>
<td>16.6</td>
<td>.504</td>
</tr>
<tr>
<td>Managerial Leadership</td>
<td>.446</td>
<td>17.2</td>
<td>-.033</td>
</tr>
<tr>
<td>Political Leadership</td>
<td>.156</td>
<td>9.5</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Population and sample. The population of concern to this study was the set of full-time intermediate, middle, and junior high school principals in urban and suburban public school districts in the state of Ohio. I originally intended to select a random sample from this target population. But as the discussion below reveals, the difference in size

---

7 Mean percentages sum to 99.9%. If percentages were rounded, sum would equal 101%.
between the population as a whole and a representative sample of the population turned out to be negligible.

For the purposes of this study, an “intermediate, middle, or junior high school” was defined as a public school with a low grade of 4th, 5th or 6th and a high grade of 8th. Using this span of grades accommodated the various grade configurations that are commonly referred to as “middle schools” in the state of Ohio. According to data from the National Center for Education Statistics’ Common Core of Data for 2011-2012, 677 schools in the state of Ohio met the researcher’s definition of “intermediate, middle, and junior high school”. Among this set of schools, 338 were classified using NCES locale codes as either urban or suburban. According to the Ohio Department of Education’s 2013 School District Typology Overview, 320 schools were classified as either urban or suburban. Eighteen charter schools were eliminated from the sampling frame and this choice partially explains the difference between the NCES and Ohio Department of Education totals. The Ohio Department of Education’s directory provided the names of the principals of each of the schools that belong to the category of interest, namely intermediate, middle, or junior high schools in urban and suburban locales in the state of Ohio. As explained below, I included all 320 principals in the sample. I did not include

---

8 According to the National Center for Education Statistics, locales are defined as follows: “11 – City, Large: Territory inside an urbanized area and inside a principal city with population of 250,000 or more. 12 – City, Midsize: Territory inside an urbanized area and inside a principal city with population less than 250,000 and greater than or equal to 100,000. 13 – City, Small: Territory inside an urbanized area and inside a principal city with a population less than 100,000. 21 – Suburb, Large: Territory outside a principal city and inside an urbanized area with population of 250,000 or more. 22 – Suburb, Midsize: Territory outside a principal city and inside an urbanized area with population less than 250,000 and greater than or equal to 100,000. 23 – Suburb, Small: Territory outside a principal city and inside an urbanized with population less than 100,000” (NCES, 2007).
assistant principals in the sample because instructional leadership is not something typically required of them.

**Sample size.** As noted above, the population of interest was the set of all urban and suburban intermediate, middle, and junior high school principals in the state of Ohio. This population included 320 public-school principals, 261 in schools classified as “suburban” and 59 in schools classified as “urban.”

Once I discovered how many schools met the criteria for inclusion in the sampling frame, I used an online calculator (http://www.surveysystem.com) to determine the size of the representative sample that would be needed from each category within the population (i.e. suburban intermediate, middle, and junior high school principals, on the one hand, and urban intermediate, middle, and junior high school principals, on the other). My aim was to identify a sample from which responses to items generating proportional data would be representative at a 95% level of confidence with a 5-percentage point confidence interval. The resulting sample turned out to include 207 principals (i.e., 156 of 261 suburban principals and 51 of 59 urban principals). The likelihood of getting responses from all 207 of these principals seemed small, so I decided that oversampling would be advisable. Considering the fact that oversampling by doubling the sample size (n = 414) would result in a number larger than the number of principals in the sampling frame (n = 320), I concluded that sampling the entire population of urban and suburban intermediate, middle, and junior high school principals (i.e., all 320 of them) made the most sense. Because this group might be seen to be

---

9 A custom table was created using the NCES Common Core of Data. The search parameters included: School Name, Urban-centric Locale Code, School Level Code, School Type Code, State, Low Grade and High Grade.
representative of the larger population of intermediate, middle, and junior high school principals in urban and suburban Ohio over a certain relatively short period of time (e.g., 2007-2017), the group of principals whom I surveyed did, in a sense, represent a purposeful sample.

**Data Collection**

To survey the principals, I mounted the questionnaire on a website by using an online survey tool, Qualtrics, for which the Patton College of Education at Ohio University holds a site license. In addition to providing a web site for the collection of data, this program generates email messages that it sends to each individual in the sample, inviting him or her to participate in the study. I developed an email message that included a description of the study outlining the purpose of the study, the appropriate consents required by the Ohio University Institutional Review Board, and a link to the survey instrument.\(^\text{10}\) The initial data collection period lasted for 10 days during November 2013. I also sent follow-up emails at 10-day intervals until at least a 50% response rate was achieved.

**Sampling issues.** The population examined in this study included all suburban and urban public intermediate, middle, and junior high school principals in the state of Ohio (\(N = 320\)). The initial data collection period lasted two months and yielded a low response rate. After consultation with my chairperson, I decided to launch the survey in another state. I chose the state of Texas because of its size. Nevertheless, the response rate from principals employed in the state of Texas was even lower than the initial Ohio

\(^{10}\) The permission form included on the survey instrument informed participants that their involvement in the study was optional and their responses anonymous.
response rate. I then decided to try Ohio principals again and to combine data from Ohio principals who responded during the initial activation period with the additional data I obtained during the second Ohio activation period.\textsuperscript{11} Using these procedures, I ended up with responses from 184 Ohio principals, a response rate of 58%.

Despite these efforts to obtain a sufficiently robust response rate, an error in setting up the survey in Qualtrics resulted in the loss of 52 cases for use in calculating the regression models. I assumed that sending the Qualtrics link directly to non-responding principals via email would allow me to include demographics about their schools along with their responses to survey items. That approach, however, was not possible through Qualtrics. Therefore, for the regression models I used data from only a subset of respondents—132 principals, representing 42% of the population overall.

As a result of my clerical error, I had three data sets with which to work. The larger data set of 184 responses incorporated data from all respondents. It included all relevant data except those relating to school district demographics. Therefore, it was useful for looking at descriptive findings and for performing a reliability analysis to ensure that the items on the revised Alkadry scale exhibited adequate internal consistency.

I was able also to break the larger data set into two smaller ones: a data set of 132 responses that included values for items on the survey as well as for school-level contextual variables and a data set of 52 responses that included values for only those items on the survey (i.e., and not for school-level contextual variables). I then compared

\textsuperscript{11} I did not include any data from Texas principals in the analyses constituting the main study.
responses from these two smaller data sets. Such comparisons showed whether or not there were statistically significant differences between the groups—differences that might suggest that the groups would also be likely to differ with regard to the school-level contextual variables. My reasoning was that, if no statistically significant differences were evident for the variables that crossed both subsets of respondents, I might be justified in inferring that the subsets also would not be likely to show significant differences on the school-level contextual variables. This reasoning was, of course, speculative.

**Data Analysis**

I computed univariate statistics to measure frequencies as well as the central tendency and dispersion of the distribution for each variable included in the model that the study tested. This analysis allowed me to determine how many respondents agreed or disagreed with items on the instrument and the general trends characterizing their responses. For this study, the variables examined using means and standard deviations as well as diagnostics for skewness and kurtosis were school socioeconomic status, school percent minority, school size, years of experience, school transience rate, perceived level of district bureaucracy, the percentage of time spent by principals on instructional leadership tasks, the percentage of time spent by principals on managerial leadership tasks, and the percentage of time spent by principals on political leadership tasks. I used frequency analysis to examine the number and percentage of principals in the two locales of interest, namely suburban and urban locales as well as gender. I also saw value in conducting a frequency analysis for other of the variables.
I also used bivariate correlations to describe the zero-order relationship between each pair of variables included in the model. Bivariate correlations measure covariance, which is important because it allows researchers to assess the extent to which they might be able to predict the value of one variable if they know the value of another variable. For example, the size of the school might be used to predict the level of bureaucracy if those two variables covary to a robust degree. The bivariate correlation coefficient is also used to determine whether or not the relationship between the variables is positive or negative. A positive correlation coefficient means the variables follow the same direction. For example, if the coefficient is positive, then as school size increases, the level of bureaucracy increases as well. A negative coefficient means that the variables move in opposite directions. An example would be this: as school size increases, the level of bureaucracy decreases. It is also important to recognize that the bivariate correlation coefficient does not determine the effect that one variable has on the other, but simply measures the relationship between the two.

I also developed multiple regression models to determine the degree of separate and combined association between the independent variables (i.e., the target predictor variable and the control variables) and the percentage of time allocated to instructional leadership, managerial leadership, and political leadership, respectively. Additionally, I looked for evidence of moderation to see if it made sense to include one or more interaction terms in the models. These analyses revealed no statistically significant interactions, so I did not compute interaction terms for inclusion in the models.
The multiple regression analyses allowed me to determine whether or not and, if applicable, to what extent socioeconomic status, percent minority, transience rates, gender, years of experience, school size, locale, and level of perceived district bureaucracy worked separately and in concert to influence the amount of time intermediate, middle, and junior high school principals devoted to the three categories of leadership activity (i.e., instructional, managerial, and political). The regression equations for each of the categories of leadership were as follows:

\[
Y \text{ (Instructional Leadership)} = b_0 + b_1 \text{SES} + b_2 \text{School Size} + b_3 \% \text{Minority} + b_4 \text{Gender} + b_5 \text{Locale} + b_6 \text{Years Experience} + b_7 \text{Transience} + b_8 \text{perceived level of district bureaucracy}
\]

\[
Y \text{ (Managerial Leadership)} = b_0 + b_1 \text{SES} + b_2 \text{School Size} + b_3 \% \text{Minority} + b_4 \text{Gender} + b_5 \text{Locale} + b_6 \text{Years Experience} + b_7 \text{Transience} + b_8 \text{perceived level of district bureaucracy}
\]

\[
Y \text{ (Political Leadership)} = b_0 + b_1 \text{SES} + b_2 \text{School Size} + b_3 \% \text{Minority} + b_4 \text{Gender} + b_5 \text{Locale} + b_6 \text{Years Experience} + b_7 \text{Transience} + b_8 \text{perceived level of district bureaucracy}
\]

According to Osborn and Waters (2002), there are four assumptions that need to be met if regression analysis is to be considered valid. The assumptions are as follows:
The first assumption is that the distributions for all variables are normal. This assumption must be met if tests of significance are to be considered valid. For this study, if the variables turned out not to be normally distributed, relationships between them might be distorted, and the significance tests would not be valid.

The second assumption is that the association between the independent and dependent variables is linear. This assumption affects the researcher’s ability to estimate accurately the relationship among variables. If a linear relationship does not exist between the dependent and independent variables, then the relationship is likely to be attenuated. For example, in this study if a linear relationship did not exist between percent minority and time spent on instructional leadership, then the magnitude of the relationship would probably be an underestimate.

The third assumption is that the variables have been measured with reliability (i.e., without error). Inaccurate measurement of the variables makes the analysis of the results questionable. If the variables were not measured using reliable instruments, estimates of the relationships between the variables would likely also to be inaccurate. In this study, perceived level of district bureaucracy was the variable most likely to be measured unreliably. For this reason, I used data from the pilot study as the basis for improving the reliability of this scale. In addition, I measured the internal consistency reliability of this scale using data from the final data set. If I found that the scale could not be revised to produce an alpha reliability coefficient of .70 or above, I decided I would remove the scale from the regression model.
Finally, multiple regression analysis is valid only when the assumption of homoscedasticity is met. Homoscedasticity (or homogeneity of variance) means that the variance of errors is the same for all values of the independent variable. In other words, when the homoscedacity assumption is met, a plot of the association between the independent variables and each dependent variable will reveal more or less equal variability at all points along the regression line.

**Study Validity**

The validity of a social-science research study concerns the degree to which the study’s methods result in accurate claims about the social world. A study’s validity is dependent on its design. Whereas no study can be perfectly valid, different study designs result in greater or lesser validity. Researchers, therefore, work to create designs that maximize both internal and external validity by avoiding or minimizing known threats. The following section of the chapter discusses threats to internal and external validity as well as features of the study’s design that were intended to minimize these threats and therefore improve the study’s validity.

**Internal validity.** Internal validity relates to the strength of the truth claims that a research study appears to support. Valid studies are much more likely than invalid ones to produce true results. In experimental research, internal validity concerns issues of study design that implicate the degree to which a study is able to support claims about causality. Researchers have identified a variety of threats to the internal validity of experimental designs (e.g., Creswell, 2008). With correlational research, such as that used in this study, study designs cannot support cause-and-effect inferences.
Nevertheless, because making truthful claims about probable relationships among variables is important, internal validity is still a concern, and various threats to internal validity need to be addressed through appropriate design features.

The data collection procedures used in a correlational study might be one source of threats to the study’s internal validity. For example, with surveys, one of the most serious threats is the possibility that respondents will comprehend items in different ways. If such differences in interpretation are idiosyncratic, then the resulting error will at least be random. If, however, such differences are systematic (e.g., based on the locale of the principals’ schools, their gender, their age, and so on), then apparent differences in responses to items may actually represent systematic differences in the understanding of those items and not actual differences in behavior or attitudes. This possibility is of particular concern, since research has shown there are differences in leadership with respect to gender. For example, random or systematic error may influence responses to items on the perceived level of district bureaucracy scale and thereby distort its influence as an independent variable. Similarly, differences in interpretation may influence how respondents conceptualize each of the dependent variables.

The dependent variables for this dissertation study included percent of time allocated to instructional leadership, percent of time allocated to managerial leadership, and percent of time allocated to political leadership. Not only might respondents’ interpretations of items relating to these variables have influenced their responses, their perceptions of the activity domains themselves might also have influenced how they responded to the items. For instance, respondents may have had selective memory; they
also may have exaggerated or embellished their responses. To try to limit the extent to which such circumstances biased the data, I did what I could to produce items that were easy to understand and seemed to respondents to embed neither positive nor negative views about different leadership activities. I used two approaches to try to create comprehensible and non-reactive items: (1) I consulted with the dissertation chair regarding the initial draft of the instrument and (2) I pilot tested the instrument prior to using it with the sample of principals from intermediate, middle, and junior high schools in urban and suburban Ohio. See the discussion above for more detailed information about the pilot study.

A second potential threat to the internal validity of the study results had to do with the fact that all data about the principals’ leadership was self-reported. Self-reporting opened the study up to the threat of social desirability bias. According to Kreuter, Presser, and Tourangeau, “the concept of social desirability bias rests on the notions that there are social norms governing some behaviors and attitudes and that people may misrepresent themselves to appear to comply with these norms” (Kreuter, Presser, & Tourangeau, 2009, p. 848). For the purposes of this study, this type of bias could have resulted in over-reporting of time spent on instructional activities and under-reporting of time spent on activities in the other two domains (managerial leadership and political leadership). Such an outcome was possible because much of the recent literature on the principalship positions instructional leadership as more important than managerial or political leadership.
**External validity.** According to Johnson and Christensen, “external validity refers to the extent to which the results of a study can be generalized to and across populations of persons, settings, times, outcomes and treatment variations” (Johnson & Christensen, 2004, p. 242). Generalizability in the case of this study means that the results of the study would be applicable across the populations of urban and suburban intermediate, middle, and junior high school principals in the state of Ohio during the 2013-2014 school year or perhaps across a wider span of school years.

One possible threat to the external validity of the study was response bias. Response bias might have occurred if certain groups were systematically excluded from the sample. For example, if proportionally more females than males responded to the survey, then the representativeness of the sample might have been compromised. Because the entire population of urban and suburban intermediate, middle, and junior high school principals was being sampled, response bias, had it been evident would have been a particularly troubling threat. I would not have been able to draw a second sample, if the first one turned out not to be representative. As a result, I used repeated email messages to encourage as large a response rate as possible.

The possibility existed that those intermediate, middle, and junior high school principals who were the most seriously overwhelmed by the demands of their jobs or overworked would not respond to the survey. This limitation might have introduced selection bias because the principals who chose not to respond actually represent a subgroup with a characteristic pattern of role performance. For example, the overworked principals might be more likely than others to need to devote time to managerial rather
than to other types of leadership. If they chose not to respond to the survey, then principals with high activity levels in the managerial domain would turn out to be underrepresented in the sample, thereby distorting the results of data analysis.

Some temporal issues also posed threats to the generalizability of this dissertation study. Ratings on the Ohio Department of Education’s State Report Card can change from year to year and, in response to the ratings, the focus of building principals could also change. For example, a school that receives a rating of “Excellent” might be in a position to allow its principal to spend less time on instructional leadership tasks (and perhaps more on political leadership tasks) than would be possible for a principal whose school receives a rating of “Academic Emergency.”

**Summary**

This chapter started by reiterating the purpose of the study, namely to answer questions regarding the association between the independent variables of principals--gender and years of experience; the locale, socioeconomic status, percent minority, school size, and transience rates of their schools; and their perception of the level of district bureaucracy—and the dependent variables of percentage of time devoted to instructional leadership, percentage of time devoted to managerial leadership, and percentage of time devoted to political leadership.

The chapter next discussed assumptions related to its methodology, namely the administration of a survey. Then it turned attention to (1) instrumentation, (2) the pilot study, (3) population and sample, (4) data collection, and (5) data analysis. The chapter
concluded by providing a discussion of issues related to the study’s internal and external validity.
Chapter 4: Findings

Introduction

This study used regression models to examine the individual and combined influence of eight variables on the amount of time intermediate, middle, and junior high school principals devote to instructional, political, and managerial leadership activities. Contextual variables included in the models as independent variables were school socioeconomic status as measured by the percentage of students eligible for free or reduced price lunch, school size, percent minority students, perceived level of bureaucracy, transience rate, and locale. Two personal characteristics of principals were also included in the models: gender and years of experience. Using data collected from Ohio principals, the regression models answered the following research questions:

1. In consideration of exogenous variables related to schools (i.e., socioeconomic status, school size, minority percentage, and transience rate) and potentially salient characteristics of principals (i.e., gender and years of experience), to what extent does locale (urban versus suburban) account for the proportion of time school principals devote to instructional leadership, managerial leadership, and political leadership activities?

2. To what extent does a combination of exogenous variables related to schools—namely locale, school size, socioeconomic status, minority percentage, and transience rate—along with characteristics of principals—namely gender of the principal and the principal’s years of experience—
predict the proportion of time principals devote to instructional leadership activities, managerial leadership activities, and political leadership activities?

3. In consideration of potentially salient control variables, is there a difference in the proportion of time principals devote to instructional leadership, managerial leadership, and political leadership activities across locales after controlling for perceived levels of bureaucracy?

Chapter four reports findings from the study, beginning with descriptive statistics, bivariate analyses, and a second reliability measure using items from the perceived level of bureaucracy scale. The discussion then turns to an examination of findings from the regression models intended to answer the research questions posed by the study. The chapter concludes with a discussion of the limitations of the multiple regression models.

Descriptive Statistics

I calculated means, standard deviations, and a skewness measure for all items on the instrument. First, I calculated these statistics for the three categories of leadership that served as dependent variables in the regression models. I conducted the same series of analyses for each of the three data sets previously discussed in chapter three. The three data sets are as follows: the complete data set (n = 184); the subset with demographic data (n =132); and the anonymous subset—the subset without demographic data (n = 52).

Descriptive analyses across data sets. For the complete data set, principals allocated their time evenly between instructional and managerial leadership—with each type of leadership comprising 42% of principals’ time. Within this same data set, principals allocated only 16% of their time to political leadership activities. For the subset
of the data that contains data on school context, I found that principals allocated 42% of their time to instructional leadership, 43% of their time to managerial leadership, and 15% of their time to political leadership. In addition, I found that, for the subset of data with no school context information, principals allocated 42% of their time to instructional leadership, while allocating 39% of their time to managerial and 19% of their time to political leadership functions respectively.

The findings (see Tables 3-5 below) showed that in all three sets of analyses principals reported allocating 42% of their time to instructional leadership. In other words, this finding was the same across the full data set, the subset for which I had complete data, and the subset for which school context data were missing.

Table 3

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.42</td>
<td>17.2</td>
<td>.01</td>
</tr>
<tr>
<td>Managerial Leadership</td>
<td>.42</td>
<td>18.1</td>
<td>.44</td>
</tr>
<tr>
<td>Political Leadership</td>
<td>.16</td>
<td>11.9</td>
<td>2.6</td>
</tr>
</tbody>
</table>
Table 4

Descriptive Statistics for Dependent Variables: Subset (N = 132)

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.42</td>
<td>16.4</td>
<td>.08</td>
</tr>
<tr>
<td>Managerial Leadership</td>
<td>.43</td>
<td>17.0</td>
<td>.32</td>
</tr>
<tr>
<td>Political Leadership</td>
<td>.15</td>
<td>9.3</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Table 5

Descriptive Statistics for Dependent Variables: Anonymous Subset (N = 52)

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional Leadership</td>
<td>.42</td>
<td>19.3</td>
<td>-.108</td>
</tr>
<tr>
<td>Managerial Leadership</td>
<td>.39</td>
<td>20.4</td>
<td>.786</td>
</tr>
<tr>
<td>Political Leadership</td>
<td>.19</td>
<td>16.5</td>
<td>2.6</td>
</tr>
</tbody>
</table>

The following information shows the comparison of gender proportions across the three data sets (See Tables 6 - 8). For the complete data set, 60.3% of the respondents were male. Females comprised 34.2% of the respondents in the complete data set. Ten individuals or 5.5% of the respondents declined to identify their gender. The subset of the data for which there was school-context information was composed of 59.1% males, 37.9% females, and 3% individuals who did not report their gender. The data set in which school-context information was missing consisted of 63.5% male principals, 25% female principals, and 11.5% principals who chose not to identify their gender.
Table 6

Descriptive Statistics and Frequencies for Actual Study Respondents: Complete Set ($N = 184$)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>111</td>
<td>60.3</td>
</tr>
<tr>
<td>Female</td>
<td>63</td>
<td>34.2</td>
</tr>
<tr>
<td>Missing</td>
<td>10</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Table 7

Descriptive Statistics and Frequencies for Actual Study Respondents: Subset ($N = 132$)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>78</td>
<td>59.1</td>
</tr>
<tr>
<td>Female</td>
<td>50</td>
<td>37.9</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Table 8

Descriptive Statistics and Frequencies for Anonymous Respondents: Subset ($N = 52$)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>33</td>
<td>63.5</td>
</tr>
<tr>
<td>Female</td>
<td>13</td>
<td>25.0</td>
</tr>
<tr>
<td>Missing</td>
<td>6</td>
<td>11.5</td>
</tr>
</tbody>
</table>

The descriptive statistics for other independent variables (with the exception of school-context variables) for all three data sets are presented in the tables below (See Tables 9 - 11). For the complete data set, the respondents averaged 10 years in the role of classroom teacher and 10 years in the role of principal. For that same data set, the average number of years in education was 18. The subset of principals for whom I had school-
context data averaged 10 years of teaching experience and 10 years of principalship experience. These same principals also averaged 18 years in education. The subset of respondents for whom I did not have school-context data averaged 10 years of teaching and 10 years of principal experience. The principals within this subset averaged 17 years in education.

Table 9

*Descriptive Statistics and Frequencies for Actual Study Respondents: Complete Set (N = 174)*

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Experience</td>
<td>9.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Principal Experience</td>
<td>10.0</td>
<td>5.4</td>
</tr>
<tr>
<td>Years in Education</td>
<td>17.7</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Table 10

*Descriptive Statistics and Frequencies for Actual Study Respondents: Subset (N = 128)*

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Experience</td>
<td>9.6</td>
<td>4.2</td>
</tr>
<tr>
<td>Principal Experience</td>
<td>9.9</td>
<td>5.3</td>
</tr>
<tr>
<td>Years in Education</td>
<td>17.8</td>
<td>3.4</td>
</tr>
</tbody>
</table>
Table 11

*Descriptive Statistics and Frequencies for Anonymous Respondents: Subset (N = 52)*

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Experience</td>
<td>9.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Principal Experience</td>
<td>10.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Years in Education</td>
<td>17.4</td>
<td>3.9</td>
</tr>
</tbody>
</table>

**Perceived Level of Bureaucracy scale: internal consistency, reliability analysis and descriptive statistics.** Using the complete data set, I computed a reliability estimate for the perceived level of bureaucracy scale. Three items were reverse coded and included in the computation along with the 12 items that did not need to be reverse coded. The reliability estimate of .80 was very close to the one obtained using data from the pilot study. Upon determining the reliability of the scale, I then summed the items to create a perceived level of bureaucracy scale score. The distribution of obtained scores ranged from 19-51, with low scores indicating a perception that bureaucracy was very high within the respondent’s school district.

I then computed descriptive statistics for total scores on the perceived bureaucracy scale across the three data sets. (See Tables 12 – 14). The average perceived bureaucracy scale score for the complete data set was 38.8 points. The subset that included school-context data had an average bureaucracy scale score of 39.2 points. The subset with missing school-context data had an average score of 38.1 points on the bureaucracy scale.
Table 12

*Descriptive Statistics for Actual Study Respondents: Complete Data Set (N = 184)*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureaucracy Scale</td>
<td>156</td>
<td>38.8</td>
<td>5.7</td>
</tr>
</tbody>
</table>

Table 13

*Descriptive Statistics for Actual Study Respondents: Demographic Subset (N = 132)*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureaucracy Scale</td>
<td>116</td>
<td>39.1</td>
<td>5.7</td>
</tr>
</tbody>
</table>

Table 14

*Descriptive Statistics for Actual Study Respondents: Anonymous Subset (N = 52)*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureaucracy Scale</td>
<td>40</td>
<td>38.1</td>
<td>5.5</td>
</tr>
</tbody>
</table>

**School context variables: descriptive statistics.** The following section presents descriptive statistics for the school-context variables that were available for the subset of 132 principals only. (See Tables 15 and 16.) Of the 132 schools with data relating to context, 26 (i.e., 20%) were classified as urban. Eighty percent (n = 106) of the schools were classified as suburban.

The average school size reported by the respondents in the subset was 625 students. On average, respondents reported that 30% of the students in their schools would be classified as minority. Approximately, 10% of the students in the schools in the subset were classified as transient. For the subset, the mean number of students who qualified for free or reduced priced lunch was 45%.

---

A lower score on the scale indicates a higher perception of district bureaucracy.
Table 15

Frequencies for Locale of Study Respondents: Subset (N = 132)

<table>
<thead>
<tr>
<th>Locale</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>26</td>
<td>19.7</td>
</tr>
<tr>
<td>Suburban</td>
<td>106</td>
<td>80.3</td>
</tr>
</tbody>
</table>

Table 16

Descriptive Statistics for Contextual Variables: Subset (N = 132)

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Size</td>
<td>625.2</td>
<td>264.1</td>
</tr>
<tr>
<td>Minority (%)</td>
<td>.298</td>
<td>.25</td>
</tr>
<tr>
<td>Mobility Rate (%)</td>
<td>.09</td>
<td>.07</td>
</tr>
<tr>
<td>SES (%)</td>
<td>.44</td>
<td>.29</td>
</tr>
</tbody>
</table>

Comparison of subsets. In light of the clerical error that resulted in the loss of demographic data for 52 principals, I determined it was important to compare descriptive findings for the shared set of variables in two of the subsets—the subset for which school-context data were available and the subset for which school-context data were not available. I used one-way analysis of variance (ANOVA) to look for significant differences in the means for all continuous variables across the two data sets. For the one categorical variable, gender I used chi-square ($\chi^2$) to identify possible differences across the two data sets.

As noted above, the logic guiding my decision to compare findings across these two subsets was the following: If there was a statistically significant difference between the respondents for whom I had school-context information and those for whom I did not
have such information, I might need to be especially cautious in assuming that results obtained with data from the former group would also apply to the latter group. If no statistical significant differences existed, then I would have some evidence to support the claim that findings from the subset for which I had school-context information would apply to the larger set of all respondents.

With respect to gender, the Chi Square test indicated that the difference between the two subsets was not statistically significant: $\chi^2 (1, N = 174) = 1.709, p = .191$. With respect to the continuous variables, degrees of freedom, F-values and significance levels for each model are also presented in Table 17.

Table 17

<table>
<thead>
<tr>
<th>$ANOVA$ Between Groups</th>
<th>$Df$</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Instructional</td>
<td>1</td>
<td>.001</td>
</tr>
<tr>
<td>Managerial</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Teaching Exp.</td>
<td>1</td>
<td>.011</td>
</tr>
<tr>
<td>Principal Exp.</td>
<td>1</td>
<td>.179</td>
</tr>
<tr>
<td>Years in Education</td>
<td>1</td>
<td>.648</td>
</tr>
<tr>
<td>Bureaucracy Scale</td>
<td>1</td>
<td>.896</td>
</tr>
</tbody>
</table>

As the results presented in Table 16 show, there were no statistically significant differences between the subsets at the $p \leq .05$ level for any of the independent variables. For the dependent variables, the picture was similar. There was not a statistically
significant difference between groups on instructional leadership at the p<.05 level [F (1,182) = .001, p = .979] or for managerial leadership [F (1,182) = 1.702, p = .194] or for political leadership [F (1,182) = 3.824, p = .052].

**Comparisons by locale.** As the discussions in chapters 1 and 2 reveal, locale was an independent variable of particular salience to this study. My initial speculation, based on my own experiences in schools and what I had read, was that principals in suburban districts would spend more time on instructional leadership and less time on managerial leadership than their urban counterparts. To explore this possibility, I decided to conduct one-way analyses of variance (ANOVA) utilizing the dataset with complete demographic data prior to constructing the full regression models. The analyses examined all of the dependent variables by locale (See Table 18).

Table 18

<table>
<thead>
<tr>
<th></th>
<th>Df</th>
<th>M</th>
<th>SD</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Size</td>
<td>1</td>
<td>625.2</td>
<td>264.1</td>
<td>16.2*</td>
</tr>
<tr>
<td>Minority %</td>
<td>1</td>
<td>.29</td>
<td>.25</td>
<td>70.5*</td>
</tr>
<tr>
<td>Mobility Rate</td>
<td>1</td>
<td>.09</td>
<td>.07</td>
<td>45.6*</td>
</tr>
<tr>
<td>SES</td>
<td>1</td>
<td>.44</td>
<td>.29</td>
<td>56.2*</td>
</tr>
<tr>
<td>Bureaucracy Scale</td>
<td>1</td>
<td>39.1</td>
<td>5.7</td>
<td>43.5*</td>
</tr>
</tbody>
</table>

*p < .01

With respect to gender, the Chi Square test indicated there was no statistically significant difference by locale: $\chi^2 (1, N = 128) = .689$, p = .41. The ANOVA
comparisons of the continuous independent variables by locale showed that all of the relationships between locale and the continuous independent variables were statistically significant.

The suburban locale had the larger-sized schools with a mean of 668 students in contrast to the mean of 448 students in urban schools. The schools with the higher percentages of students who would be classified as minority were found in the urban locale. On average, 60% of the students in urban schools were classified as having minority status in comparison to an average of 22% in the suburban schools. The transience rate was twice as high in urban schools at 17% as compared to 8% in the suburban locale. The percentage of students who qualified for free or reduced-priced lunch in the urban locale at 77% was more than twice that of their suburban counterparts at 37% percent. Principals in the urban locale had lower scores on the perceived bureaucracy scale than their suburban colleagues. This indicates a higher perception of bureaucracy in the urban locale.

**Comparison of allocation of time to different leadership domains.** To compare the mean allocations of time among the three leadership domains, I performed paired sample t-tests using data from the full data set. (See Table 19.) The test results showed there was not a statistically significant difference between allocations of time to instructional (M = 41.83, SD = 17.30) and managerial (M = 41.67, SD = 18.11) leadership [t (183) = .064, p = .949]. Conversely, there was a statistically significant difference between the allocation of time to instructional (M = 41.83, SD = 17.30) and political (M = 16.49, SD = 11.92) leadership [t (183) = 14.59, p = .000]. Additionally,
there was a statistically significant difference between the allocation of time to managerial (M = 41.67, SD = 18.11) and political (M = 16.49, SD = 11.92) leadership [t (183) = -13.49, p = .000].

Table 19

*Paired Samples T-Test for Three Leadership Domains (N = 184)*

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>M</th>
<th>SD</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional – Managerial</td>
<td>.158</td>
<td>33.3</td>
<td>.064</td>
</tr>
<tr>
<td>Instructional – Political</td>
<td>25.3</td>
<td>23.5</td>
<td>14.5*</td>
</tr>
<tr>
<td>Managerial – Political</td>
<td>-25.1</td>
<td>25.3</td>
<td>-13.4*</td>
</tr>
</tbody>
</table>

*p < .01

**Bivariate associations.** In an effort to determine the existence and magnitude of relationships between the variables in the study, I computed bivariate correlations (see Table 19). These analyses revealed several statistically significant bivariate associations.

First, the size of the school and perceptions of bureaucracy were correlated, \[r(130) = .24, p = .01\]. In other words, the larger the school, the more did principals perceive it to be bureaucratic.

Minority percentage was also moderately correlated with perception of bureaucracy \[r(130) = -.44, p < .01\]. This result shows that, as the minority percentage increased, the perception of bureaucracy increased \[r(114) = -.44, p < .01\].

Mobility rate was negatively correlated with instructional leadership \[r(130) = -.21, p < .05\]. This finding implies there was less time allocated to instructional leadership in schools with high mobility rates. A correlation also existed between mobility rate and
perceived bureaucracy. As the mobility rate increased, the perceptions of bureaucracy increased as well \[ r(114) = -.35, p < .01 \].

A correlation existed between free and reduced-price lunch rate and perceptions of bureaucracy, \[ r(114) = -.34, p < .01 \]. In other words, as the number of students who qualified for free or reduced-priced lunch increased, the more principals perceived their school system to be bureaucratic. The perception of bureaucracy was also statistically significantly correlated with time allocated to managerial leadership, \[ r(114) = .23, p < .05 \]. In schools that principals perceived to be more bureaucratic, school leaders reported spending more time on managerial tasks.

Years in education was negatively correlated with instructional leadership, \[ r(172) = -.204, p < .01 \]. This indicates that principals who were near the end of their careers in education reported devoting less time to instructional leadership than those who were newer to the role of educator. Years in education was positively correlated with managerial leadership, \[ r(172) = .16, p < .05 \]. In other words, as the number of years in education increased, the amount of time principals spent on managerial leadership increased as well.

Several of the demographic variables were also associated with one another and with other variables in the model. School size, minority percentage, mobility rate, socioeconomic status, and bureaucracy scale were all statistically significantly associated with locale as indicated through a one-way analysis of variance. Findings for this study determined the urban locale had smaller schools, while the suburban locale had lower SES and mobility rates, in addition to lower minority percentages and perceptions of
bureaucracy. Additionally, school size was statistically significant and negatively correlated with minority percentage \( r(130) = -.21, p < .05 \), mobility rate, \( r(130) = -.34, p < .01 \), and poverty rate, \( r(130) = -.37, p < .01 \).

**Possible interaction effects.** To determine whether or not there were interaction effects between locale and school size, I divided the data set into two subsets by locale and examined the correlations between school size and mobility rate, school size and SES, and school size and perception of bureaucracy.

In the urban locale school size was negatively correlated with mobility rate \( r(26) = -.43, p < .05 \) and socioeconomic status, \( r(26) = -.40, p < .05 \). The correlation between school size and perception of bureaucracy within the urban locale was positive, yet not significant, \( r(26) = .08, p > .05 \). For the suburban locale, school size was also negatively correlated with mobility rate, \( r(106) = -.20, p < .05 \) and socioeconomic status, \( r(106) = -.22, p < .05 \). The correlation between school size and perception of bureaucracy was also positive, yet not statistically significant within the suburban locale as well, \( r(106) = .09, p > .05 \). Because the correlations were negative with respect to school size, mobility rate and SES and positive with respect to school size and perception of bureaucracy *within both subsets*, I did not see evidence of an interaction effect. If the correlation had been positive in one but negative in the other, then I might have had evidence to suggest that the size X SES, size X mobility rate, or size X perceived bureaucracy associations functioned differently within the two different locales.
Table 20

*Bivariate Correlations Between School Size, Minority Percentage, Mobility Rate, Socioeconomic Status, Political Leadership, Instructional Leadership, Managerial Leadership and Bureaucracy Scale (N = 132 Principals)*

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. School Size</td>
<td></td>
<td>-.21*</td>
<td>-.34**</td>
<td>-.39**</td>
<td>.07</td>
<td>-.02</td>
<td>-.01</td>
<td>.247**</td>
</tr>
<tr>
<td>2. Minority Percentage</td>
<td>-.21*</td>
<td></td>
<td>.56**</td>
<td>.62**</td>
<td>-.02</td>
<td>-.09</td>
<td>.11</td>
<td>-.44**</td>
</tr>
<tr>
<td>3. Mobility Rate</td>
<td>-.34**</td>
<td>.56**</td>
<td></td>
<td>.68**</td>
<td>.08</td>
<td>-.21*</td>
<td>.16</td>
<td>-.35**</td>
</tr>
<tr>
<td>4. Socioeconomic Status</td>
<td>-.37**</td>
<td>.62**</td>
<td>.68**</td>
<td></td>
<td>.06</td>
<td>-.06</td>
<td>.02</td>
<td>-.34**</td>
</tr>
<tr>
<td>5. Political Leadership</td>
<td>.07</td>
<td>-.02</td>
<td>.08</td>
<td>.06</td>
<td></td>
<td>-.22*</td>
<td>-.33**</td>
<td>.10</td>
</tr>
<tr>
<td>6. Instructional Leadership</td>
<td>-.02</td>
<td>-.09</td>
<td>-.21*</td>
<td>-.06</td>
<td>-.22*</td>
<td></td>
<td>-.85**</td>
<td>.18</td>
</tr>
<tr>
<td>7. Managerial Leadership</td>
<td>-.01</td>
<td>.11</td>
<td>.16</td>
<td>.02</td>
<td>-.33**</td>
<td>-.85**</td>
<td></td>
<td>-.23*</td>
</tr>
<tr>
<td>8. Bureaucracy Scale</td>
<td>.25**</td>
<td>-.44**</td>
<td>-.35**</td>
<td>-.34**</td>
<td>.10</td>
<td>.18</td>
<td></td>
<td>-.23*</td>
</tr>
</tbody>
</table>

*p < .05 (two-tailed)

**p < .01 (two-tailed)
Regression Analyses

I used multiple regression models to determine the influence of school size, minority percentage, mobility rate, socioeconomic status, gender, years in education, perceived district bureaucracy, and locale on principals’ allocation of time to specific leadership domains. I constructed three models using the subset of data that contained demographic information. Each of the models focused on allocation of time to one of the three leadership domains: political, managerial and instructional leadership, respectively.

In all three models, the combination of variables yielded R-squared values that were different from zero: managerial leadership ($R^2 = .14$), political leadership ($R^2 = .04$), and instructional leadership ($R^2 = .14$).

Table 21 reports the standardized and unstandardized regression coefficients for this model. The equation used to evaluate political leadership was not found to be statistically significant at the .05 probability level, with the independent variables accounting for 4% of the total variance in the dependent variable ($R^2 = .04$, $F (8, 115) = .515, p > .05$). None of the variables had a statistically significant association with the percentage of time allocated to political leadership.
Table 21

Summary of Simultaneous Regression Analysis for Variables Predicting Time Allocated to Political Leadership

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Size</td>
<td>.002</td>
<td>.004</td>
<td>.056</td>
</tr>
<tr>
<td>Minority %</td>
<td>-1.39</td>
<td>5.00</td>
<td>-.039</td>
</tr>
<tr>
<td>Mobility Rate</td>
<td>13.55</td>
<td>17.43</td>
<td>.105</td>
</tr>
<tr>
<td>SES</td>
<td>1.84</td>
<td>4.48</td>
<td>.060</td>
</tr>
<tr>
<td>Gender</td>
<td>1.50</td>
<td>1.89</td>
<td>.079</td>
</tr>
<tr>
<td>Years in Education</td>
<td>.113</td>
<td>.257</td>
<td>.042</td>
</tr>
<tr>
<td>Bureaucracy Scale</td>
<td>.221</td>
<td>.185</td>
<td>.137</td>
</tr>
<tr>
<td>Locale</td>
<td>-.308</td>
<td>3.01</td>
<td>-.014</td>
</tr>
</tbody>
</table>

The equation used to evaluate managerial leadership was found to be statistically significant at the .05 probability level, with the independent variables accounting for 14% of the total variance in the dependent variable ($R^2 = .14$, $F(8, 115) = 2.12$, $p < .05$).

Socioeconomic status was the one variable that had a statistically significant association with percentage of time allocated to managerial leadership. In other words, principals in schools with higher percentages of students who qualified for free and reduced-priced lunch allocated significantly more time to managerial leadership activities than principals in schools with lower percentages of students who were eligible for free and reduced-price lunches. Table 22 reports the standardized and unstandardized regression coefficients for this model.
Table 22

Summary of Simultaneous Regression Analysis for Variables Predicting Time Allocated to Managerial Leadership

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Size</td>
<td>.004</td>
<td>.007</td>
<td>.062</td>
</tr>
<tr>
<td>Minority %</td>
<td>1.3</td>
<td>8.6</td>
<td>.020</td>
</tr>
<tr>
<td>Mobility Rate</td>
<td>51.9</td>
<td>30.0</td>
<td>.222</td>
</tr>
<tr>
<td>SES</td>
<td>-15.5</td>
<td>7.7</td>
<td>-.278*</td>
</tr>
<tr>
<td>Gender</td>
<td>-3.0</td>
<td>3.2</td>
<td>-.087</td>
</tr>
<tr>
<td>Years in Education</td>
<td>.717</td>
<td>.442</td>
<td>.148</td>
</tr>
<tr>
<td>Bureaucracy Scale</td>
<td>-.464</td>
<td>.318</td>
<td>-.159</td>
</tr>
<tr>
<td>Locale</td>
<td>-6.8</td>
<td>5.1</td>
<td>-.168</td>
</tr>
</tbody>
</table>

*p < .05

The equation used to evaluate instructional leadership was also statistically significant at the .05 probability level, with the independent variables accounting for 14% of the total variance in the dependent variable ($R^2 = .14, F(8, 115) = 2.15, p < .05$).

Mobility rate was the one variable that had a statistically significant association with percentage of time allocated to instructional leadership. In other words, principals in schools with higher mobility rates allocated significantly less time to instructional leadership activities than did counterparts in schools that had lower mobility rates. Table 23 reports the standardized and unstandardized regression coefficients for this model.
I also used stepwise regression models to determine which independent variables could predict the amount of time allocated to the leadership domains. This approach showed that both mobility rate and years in education were statistically significant predictors of time allocated to instructional leadership. The bureaucracy scale was determined to be a statistically significant predictor of time allocated to managerial leadership. Tables 24 and 25 report the standardized and unstandardized regression coefficients for these models.
### Table 24

*Summary of Stepwise Regression Analysis for Variables Predicting Time Allocated to Instructional Leadership*

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobility Rate</td>
<td>-45.4</td>
<td>20.8</td>
<td>-.199*</td>
</tr>
<tr>
<td>2 (Constant)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobility Rate</td>
<td>-45.0</td>
<td>20.5</td>
<td>-.198*</td>
</tr>
<tr>
<td>Years in Education</td>
<td>-.924</td>
<td>.425</td>
<td>-.197*</td>
</tr>
</tbody>
</table>

*p < .05

### Table 25

*Summary of Stepwise Regression Analysis for Variables Predicting Time Allocated to Managerial Leadership*

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bureaucracy Scale</td>
<td>-.668</td>
<td>.266</td>
<td>-.229*</td>
</tr>
</tbody>
</table>

*p < .05

**Comparison of direct entry and stepwise models.** Two different types of regression models were used to predict the amount of time principals allocated to instructional leadership. The direct entry model showed that the combination of all predictor variables was statistically significantly related to instructional leadership, $F[(8,107) = 2.154, p < .05]$. The model specifically attributed the significant association to school’s mobility rate. The multiple correlation coefficient was .37, indicating that 14% of the variance in the amount of time allocated to instructional leadership could be accounted for by the combined influence of all independent variables. The stepwise model, by contrast, showed that both mobility rate and years in education were statistically significant predictors the amount of time allocated to instructional leadership.
This model explained 12% of the overall variance in the percentage of time allocated to instructional leadership.

A similar set of models (direct entry and stepwise) was used to predict the amount of time principals allocated to managerial leadership. The direct entry model showed that the combination of all predictor variables was statistically significantly related to managerial leadership also, \( F[(8,107) = 2.121, p < .05] \). Specifically the number of students who qualified for free or reduced-priced lunch significantly correlated with managerial leadership. The multiple correlation coefficient was .37, indicating that 14% of the variance in the amount of time allocated to managerial leadership could be accounted for by the combined influence of all independent variables. By contrast, the stepwise model showed that the perceived bureaucracy scale score was the one variable that predicted the amount of time allocated to managerial leadership. The correlation coefficients indicated that 5% of the variance in the amount of time allocated could be attributed to this independent variable. In order to determine if the difference between the findings could be attributed to the correlation between bureaucracy and SES, I re-ran the direct entry model without the SES variable. With this model, however, the perceived bureaucracy predictor variable was not statistically significant. Because my original plan was to use direct entry, however, that equation is the one I will refer to when discussing predictors of managerial leadership.

**Summary of Major Findings and Answers to the Research Questions**

This study set out to determine the individual and combined influence of eight variables on the proportion of time principals devote to instructional, political, and
managerial leadership activities. The contextual variables included in the model as independent variables were SES, school size, percent minority students, perceived level of district bureaucracy, transience rate, and locale. The other two variables were the following characteristics of the principals: gender and years of experience. Using data collected from Ohio principals, I computed bivariate correlations and regression models to answer the following research questions:

1. In consideration of exogenous variables related to schools (i.e., socioeconomic status, school size, minority percentage, and transience rate) and potentially salient characteristics of principals (i.e., gender and years of experience), to what extent does locale (urban versus suburban) account for the proportion of time school principals devote to instructional leadership, managerial leadership, and political leadership activities?

2. To what extent does a combination of exogenous variables related to schools—namely locale, school size, socioeconomic status, minority percentage, and transience rate—along with characteristics of principals—namely gender of the principal and the principal’s years of experience—predict the proportion of time principals devote to instructional leadership activities, managerial leadership activities, and political leadership activities?

3. In consideration of potentially salient control variables, is there a difference in the proportion of time principals devote to instructional leadership, managerial leadership, and political leadership activities across locales after controlling for perceived levels of bureaucracy?
To answer the first research question, I constructed three regression models with each one focusing on the principal’s allocation of time to one of the three leadership domains: political, managerial and instructional. In two of the models (i.e., the one showing predictors of instructional leadership and the one showing predictors of managerial leadership), the combination of variables yielded R-squared values that were different from zero. However, with all else controlled, neither of these equations showed locale to have a statistically significant association with the amount of time principals allocated to any of the leadership domains.

For the second question under study, bivariate correlations and regression models allowed me to determine what combination of exogenous variables, along with principals’ characteristics, predicted the amount of time devoted to instructional, managerial, and political leadership respectively.

The analyses showed that years in education and mobility rate were predictors of allocation of time to instructional leadership. Perception of bureaucracy, years in education, and SES were statistically significant predictors of time allocated to managerial leadership depending on the analyses method used. None of the independent variables either alone or taken in combination turned out to be predictors of time allocated to political leadership.

The final research question sought to determine if a difference existed in the proportion of time devoted to the various leadership activities by locale after controlling for perceived levels of bureaucracy and other contextual variables. I used multivariate analysis of covariance to compare estimated marginal means for instructional and
managerial leadership percentages across locales to determine if such a difference existed. I did not include an equation with political leadership as the dependent variable because the direct entry model had already shown that the equation was not statistically significant.

As the output in Table 26 shows, the estimated marginal mean across locales showed some evident differences, but mean comparison tests showed that these differences were not statistically significant. (See Appendix G for the complete output.) Across both urban and suburban locales, when level of bureaucracy and other contextual variables were controlled, principals spent approximately 40% of their time on instructional leadership and slightly more—approximately 44%—of their time on managerial leadership.

Table 26

Estimated Marginal Means

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Locale</th>
<th>Mean</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional</td>
<td>Urban</td>
<td>36.1</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>43.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Managerial</td>
<td>Urban</td>
<td>48.4</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>41.5</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Limitations of the Multiple Regression Models

There are two limitations worthy of discussing here. The first has to do with the fact that the regression models for this study explained a relatively small amount of variance. The independent variables accounted for only 14% of the variance in the amount of time principals reported allocating to instructional, on the one hand and managerial leadership, on the other. The assumption was that these variables would play...
a larger role in influencing the amount of time principals allocate to the various leadership domains. There was a small, yet statistically significant relationship between the variables under study and the principals’ allocation of time. A model with greater specification might have provided insights into other circumstances that might predict the amount of time that principals allocated to these domains of practice.

An additional limitation of the findings lies in the fact that the models (of necessity) run afoul of the “ecological fallacy” because they include contextual variables as if they were properties of the principals. For example, school SES was included as a control variable as if it were a property of principals rather than of schools. The use of multi-level modeling is a way to keep from having to construct models that reflect the ecological fallacy, but, because of the way data were collected for this study, multi-level modeling was not an appropriate choice.

**Summary**

This chapter provided answers to the research questions guiding the study. To answer the first research question, which focused on the impact of locale, three regression models were constructed with each one focusing on the principal’s allocation of time to each of the following domains: instructional leadership, managerial leadership and political leadership. None of the regression models showed the schools’ geographic location (urban or suburban) to have a statistically significant association with the amount of time principals allocated to any of the leadership domains.

The second research question pertained to *predictors* of time allocated to each of the three leadership domains. Regression models and bivariate correlations showed that
years in education and mobility rate were statistically significant predictors of time allocated to instructional leadership, while perception of school district bureaucracy, years in education, and SES were statistically significant predictors of time allocated to managerial leadership. None of the exogenous variables individually or in combination were statistically significant predictors of time principal’s allocated to political leadership.

The final research question sought to determine if principals allocated their time differently by locale after controlling for their perceptions of school district bureaucracy and other contextual variables. Multivariate analysis of covariance was used, and although there were some evident differences, mean comparison tests showed that the differences in time allocation were not statistically significant. Said differently, after controlling for how they perceived their school districts’ levels of bureaucracy and the other personal and contextual variables in the study, urban and suburban principals allocated their time similarly.

Lastly, this chapter concluded with a discussion regarding the limitations of the regression models. The first limitation was the regression models explained a relatively small amount of the variance in principals’ allocation of time. The second limitation dealt with the necessity of the models to attribute school-level characteristics to the principals themselves.
Chapter 5: Interpretations and Recommendations

Introduction

This chapter discusses the major findings of the study and compares them to findings reported in the related literature. It examines similarities and differences between my finding and those of earlier studies while also providing new insights. On the basis of the results of my study, the chapter offers recommendations for similar research on the topic of principals’ allocation of time to various leadership activities. It also considers the practical ramifications of the findings particularly for central-office administration, school boards, and state policy makers.

Discussion of Findings

This study contributed five major findings. First, it found that locale was not associated with the time that principals allocated to the three leadership domains. Second, it found that principals’ years in education and schools’ mobility rate were predictors of the proportion of time principals allocated to instructional leadership. The association of each of these variables with time allocated to instructional leadership was negative. Third, depending on the particular analysis method, it found that principals’ perception of district bureaucracy, principals’ years in education, and schools’ socioeconomic status were predictors of the proportion of time principals allocated to managerial leadership. All three associations were positive. Fourth, it found that none of the contextual variables, individually or combined, were predictors of proportion of time principals

13 The direct-entry regression analysis method showed socioeconomic status to be a statistically significant predictor of time allocated to managerial leadership, while the stepwise entry regression analysis method showed perception of school district bureaucracy to be a statistically significant predictor of time allocated to managerial leadership.
allocated to political leadership. Finally, when principals’ perceived levels of district bureaucracy and other contextual variables were controlled, it found that no difference existed by locale in the proportion of time principals allocated to instructional and managerial leadership activities.

Of the eight independent variables included in the study, principals’ years in education and schools’ mobility rate proved to be the most influential in determining the amount of time principals allocated to instructional leadership. Principals who were nearing the end of their careers spent less time on instructional leadership activities. Additionally, principals in schools with students who were highly transient also spent less time on instructional leadership activities.

In schools with higher percentages of students who were eligible for free or reduced-priced lunches, principals reported allocating more time to managerial leadership. Furthermore, as they neared the end of their careers, principals also reported spending more of their time on managerial leadership activities. Lastly, principals who perceived their school districts to be highly bureaucratic reported spending more time on managerial leadership as well.

There were two locales under study: urban and suburban. These two were included in order to investigate the possibility that differences existed in principals’ allocation of time to the various leadership activities because of the location of the school. The study revealed, however, that although differences existed in allocation of time to the various leadership activities, these were associated with variables other than locale.
This study also offered insights relating to the relevance of recommendations about how principals should allocate their time. There is a school of thought within the educational community that maintains that principals should allocate the majority of their time to instructional leadership activities. This study found, however, that there is a gap between this prescription for principals’ practice and principals’ actual practice. Although the distribution of time between instructional and managerial leadership activities was close to even, principals in this study spent more of their time on managerial leadership than on instructional leadership (see also Cuban, 1988; Lyons & Algozzine, 2006; Sullivan 2007).

**Interpretation of Findings**

This section examines the five major findings in more detail, and offers potential explanations. It also connects findings from the study to the results of earlier studies with similar aims.

**Locale.** Locale was one of the primary variables under study. As previously stated, locale in and of itself did not account for the proportion of time principals allocated to instructional, managerial, or political leadership activities. Furthermore, after controlling for principals’ perceived levels of district bureaucracy and the other contextual variables, no differences existed in the time devoted to the various leadership domains by principals in suburban in contrast to those in urban locales.

My findings appear to contradict findings reported in some earlier studies. For example, Erwin (2010) reported that, in general, urban principals seemed to be confronted with more challenges than their suburban counterparts. Because of the
challenges urban principals faced, Blank (1987) concluded that they actually provided
effective leadership in only a few areas, only some of which were instructional. Martinko
and Gardner (1983) had previously arrived at a similar conclusion when they reported
that the degree of urbanization seemed to influence principals’ leadership behaviors.

But my findings did support some of what these earlier studies found. Notably, in
Erwin’s study, results showed that urban principals often confronted the challenges of
low community SES, high minority percentages, inexperienced teachers, and high student
mobility. Findings from my study fit with findings from Erwin’s earlier research by
showing that schools in urban locales still had higher percentages of minority students,
students who qualified for federal lunch programming, and students who were transient.
In contrast, schools in a suburban locale had lower percentages of students in poverty,
students from racial and ethnic minorities, and students who were transient.

Perceptions of school-district bureaucracy were also lower in suburban locales.
As reported earlier, principals in school districts perceived as highly bureaucratic spent
more time on managerial leadership activities. This study supports the prevailing wisdom
derived from previous studies (Hallinger & Murphy, 1985, 1987; Hallinger et al., 1989;
Rowan & Denk, 1984) suggesting that locale does influence the conditions that
 principals’ face even if it may not influence their allocation of time to different types of
leadership practice.

Years in education. The study found through bivariate correlations that tenure as
an educator was negatively associated with allocation of time to instructional leadership
activities, \( r(174) = -.20, p < .01 \). This statistically significant finding indicates that
principals who were near the end of their careers in education reported devoting less time
to instructional leadership than those who were newer to the role of principal. Moreover,
the variable, years in education was positively associated with time devoted to
managerial leadership, \( r(174) = .16, p < .05 \). In other words, this statistically significant
finding indicates that as the number of years in education increased, so too did the
amount of time principals allocated to managerial leadership.

These findings fit with other literature describing the perspectives of more and
less experienced principals. In her study of age and school leadership, Youngs (1988)
found that school administrators over the age of 45 tended to view themselves as
managers. Although age has not been studied extensively in relationship to leadership
style or behavior, several recent studies have also found it to have some influence on
certain aspects of leadership (Barbuto, Fritz, Matkin, & Marx, 2007; Zacher, Rosing &
Freese, 2011).

**Student mobility rate.** This study found a negative correlation between student
mobility rate and principals’ allocation of time to instructional leadership. This
association implies that less time was allocated to instructional leadership in schools with
high transience rates. There was also a positive relationship between mobility rate and
perception of bureaucracy. As the schools’ mobility rate increased, principals perceived
their school districts to be more bureaucratic.

Little research has examined the association between student mobility and
principals’ allocation of time to leadership domains. Several authors (Audette &
Algozzine, 2000; Boon, 2011; Thompson, Meyers, & Oshima, 2011) reported, however,
that student mobility rate was negatively associated with academic achievement. Scherrer (2013) determined that high rates of student mobility harmed not only individual students, but also the schools they attended. The present study indirectly supported this claim because student mobility was found to be a negative predictor of the time principals devoted to instructional leadership. Arguably, the students with the greatest need for a principal who devoted attention to curriculum and instruction were attending schools with principals who devoted lesser amounts of attention to these important matters.

**Perceptions of district bureaucracy.** My study found perceived levels of district bureaucracy to be associated with other contextual variables. In larger schools, with high percentages of transience, minority enrollment, and students who qualified for federal lunch programs, the principals perceived their school districts to be more bureaucratic. In contrast to suburban principals, urban principals also saw their school districts as more bureaucratic. The association between managerial leadership and bureaucracy was also positive.\(^\text{14}\) In other words, in schools that principals perceived to be more bureaucratic, they reported spending more time on managerial tasks.

These findings support the earlier research of Morris and associates (1982) who concluded that only when principals in larger and more urban districts executed “extrabureaucratic” maneuvers were they able to focus sufficient attention on instructional matters. My findings also seemed to confirm the findings of Hannaway and Talbert’s study (1991), which showed that principals of urban schools reported having less autonomy than their suburban counterparts.

---

\(^{14}\) This finding came from the bivariate correlation between time allocated to managerial leadership and principals’ perception of district bureaucracy.
Research on bureaucracy and principals’ allocation of time is limited. Researchers have found, however, that levels of bureaucracy are negatively associated with student achievement (Smith & Larimer, 2004). Some research has also shown that the level of bureaucratic complexity and rigidity with which some schools must cope pose challenges to those schools (Crowson, 2011; Crowson & Boyd, 1996). Not too surprisingly, findings from the current study showed that higher levels of bureaucracy predisposed principals to favor managerial leadership. Although the current study demonstrates that higher levels of bureaucracy predispose principals to favor managerial leadership, bureaucratic perceptions associated with national, state, and local reform initiatives could shift a principal’s focus into the political leadership domain (Datnow, 2000).

**Socioeconomic status.** In my study community SES had a significant association with the percentage of time principals allocated to managerial leadership. Schools with higher percentages of students who were eligible for free or reduced-priced lunches also had principals who allocated significantly more time to the managerial domain.

Previous studies of the influence of school SES on principals’ leadership yielded mixed results. Hallinger and Murphy’s (1985) study indicated there was no discernable difference in the instructional leadership of principals in high and low SES schools. But a study conducted in 1986 by these same authors (Hallinger & Murphy) found that principals in high-poverty schools paid more attention than their peers in affluent schools to curricular and instructional issues. Camburn, Goldring, Huff, and May (2008) arrived

---

15 The direct-entry regression analysis method showed socioeconomic status to be a statistically significant predictor of time allocated to managerial leadership.
at similar conclusions when they found instructional leaders to be more prevalent in disadvantaged schools.

O’Donnell and White (2005), by contrast, found that the instructional leadership practice of defining the school mission—a practice that tends to promote high levels of achievement—was more prevalent in schools serving higher SES students. Findings from my study fit more with those reported by O’Donnell and White than those reported by Camburn and associates (2008) and Hallinger (1996). They did not support previous claims that principals in schools with high percentages of low-SES students exercised more instructional leadership (Goldring, 2006; Hallinger, 1996). Rather, in addition to supporting findings from the O’Donnell and White study, they also supported findings from Lortie, Crow, and Prolman’s (1983) study of low-SES schools, namely that the principals in such schools focused more of their time on student discipline and managing difficult staff relationships than on instructional matters.

In light of the current study’s findings that community SES was a statistically significant predictor of time allocated to managerial leadership, it should also be noted that principals in communities with low SES often demonstrate political leadership when establishing partnerships and collaborating with stakeholders within their school communities (Brooks, 2009; Sanders & Harvey, 2002).

Political leadership. Findings from the current study both support and contradict those presented in the earlier related literature on political leadership. For example, the results from this study tended to support those presented by Murphy (1998) suggesting that principals balanced their activities across three domains: instructional, political, and
managerial. This study showed, however, that, even though principals did balance their work across the three leadership domains, they tended to allocate less time to political leadership activities than to leadership activities in the other two domains. In fact, none of the exogenous variables was shown to be a statistically significant predictor of time principals allocate to political leadership. Research has shown, however, that school reform models, community dynamics and transactional leadership styles potentially push principals towards more political leadership (e.g., Bush, 2006; Datnow, 2000; Johnson, 1996).

Furthermore, potential discrepancies exist between the current study’s findings and what the aforementioned researchers recommend. In part the discrepancy may result from differences between how researchers and state education agency officials view reform models and how principals view reform models. For example, principals in buildings that are required to participate in reform initiatives may regard the compliance and fidelity of implementation expectations of the reform model as requiring primarily managerial leadership rather than requiring coalition-building around agreed-upon educational aims. So even if reformers imagine that such efforts will entail deep engagement with the communities surrounding schools, the principals may interpret the high-stakes character of the reform as requiring them to keep the community at arms’ length.

**Limitations**

The limitations of the study relate to those design features with the potential to threaten internal validity. When such features can be controlled completely, they do not
represent limitations, but when their control is only partial, they may interfere with the study’s ability to support valid claims on the basis of the statistical models it uses.

Delimitations, by contrast, define the boundaries or limit the scope of a study. Researchers impose delimitations with respect to every feature of a study, for example, the theoretical perspective of the study, the identification of the problem, the research questions, the variables of interest, and the character of the sample. All such delimitations are likely to have an impact on the external validity of the study, that is, its ability to produce findings that can be generalized beyond the sample surveyed (or studied in some other way) as part of the research.

First, this study was limited by the use of an on-line survey instrument. For example, I believed principals might actually turn out not to be able to estimate accurately the amount of time they devote to each of the leadership domains. Self-reporting data of this sort might, for example, be subject to social desirability bias. In other words, principals might have provided responses based on what they believed they “should” be doing rather than on the basis of their accurate assessment of what they actually do.

Second, the study was limited because it represented conditions at one point in time. Because it was not longitudinal, it overlooked the way that leadership dynamics evolve over time. Nevertheless, the activities in which principals engage may actually change over time. For example, the nature of the principal’s job may differ at different times during the year. Changes in central office administration may create modifications in how principals construe their roles, and changes in local and national standards may
also influence the way principals carry out their duties. This study was also limited because it did not measure the level of experience of the teachers with whom the principals worked. For example, more experienced teachers might require less instructional leadership from the principal, in comparison to novice teachers. Additionally, changes in the demographics of the community might create the need for adjustments in the principals’ approach to dealing with various issues.

The limitations of the current study require the exercise of discretion when interpreting the results. An important limitation relates to the sampling issues encountered during the survey activation period. The initial data collection period lasted two months and yielded a low response rate. The low response rate was coupled with a clerical error that resulted in the loss of 52 cases for use in calculating the regression models. As a result, only 20% of the principals in the sample turned out to work in urban school districts.

The survey instrument was administered online, as opposed to via interviews or mailed surveys. Internet distribution via email is also a limitation that can influence the response rate. Spam or other unsolicited emails are problematic for administrators who receive multiple electronic communications throughout the workday. In an effort to limit the extent to which this potential threat would have influenced the data, pre-notification and follow-up emails were sent to the principals in the sample.

Another limitation of the study was that the regression models explained only a relatively small amount of variance. The assumption was that the exogenous variables
under study would, either individually or in combination, play a larger role in influencing
the amount of time principals allocated to both managerial and instructional leadership.

An additional limitation of the study lay in the fact that the regression models
treated contextual variables as properties of the principals. This caused the models to run
afoul of the “ecological fallacy.”

Furthermore, this study surveyed intermediate, middle and junior high school
principals only—a choice that limited generalizability to principals solely at one level. Its
findings are not applicable to school leaders in high schools or elementary schools. I
delimited the study in this way because I am a middle school principal in a suburban
school district and chose to study a topic that was relevant to my current work situation.

This study was also delimited to urban and suburban school principals. Principals
of rural schools as well as charter, vocational, parochial schools were excluded. As a
consequence, results do not apply to all principals in intermediate, middle, and junior
high schools in the state of Ohio.

In addition, the study was delimited to principals in the state of Ohio; principals in
the sample were not, therefore, representative of school principals across the United
States. Nevertheless, Ohio is a Midwestern state with large cities as well as agricultural
areas. Its principals may be similar to those in other Midwestern states with similar
characteristics, such as Michigan, Illinois, and Indiana. Generalizing to populations of
principals in these states, however, should be done cautiously.
Implications

This section of the chapter discusses the implications of the study’s findings for research and practice. It also presents recommendations based on the findings of the study.

As previously discussed, some studies have examined contextual influences on the instructional leadership of principals. These studies have tended to emphasize school SES, minority percentage, and size. A few (e.g., Hallinger & Murphy, 1985; Hannaway & Talbert, 1991; Horng et al., 2010; Valentine & Prater, 2011) have also made comparisons across locales. Among these studies, however, I was not able to find any that used perceived level of bureaucracy as a moderating variable.

I was particularly interested in examining the possibility that employment in an urban locale may have predisposed principals to devote more or less time to instructional leadership. I also chose to study urban and suburban districts only because I have been employed as a principal in both settings. Urban schools face a host of challenges, and they depend for their academic success (or improvement) on the capabilities of their principals to envision, advocate, and support high quality curriculum and instruction (Bryk, 2010; Gardner, Canfield-Davis & Anderson, 2008). Nevertheless, one structural challenge that may interfere with principals’ best efforts is the level of bureaucratic complexity and rigidity with which some schools must cope (Crowson, 2011; Crowson & Boyd, 1996). Often the schools that confront the largest and most complex bureaucracies are located in urban areas (e.g., Walker, 2002).
Speaking about the consequences of the bureaucratization of urban schools, Walker (2002) claimed that, since the 1970s, increasingly more rigid authority structures have impeded reform efforts. Similarly, Honig and Hatch (2004) argued that urban public schools are hampered by school improvement policies that, at times, compromise their efforts to improve. Moreover, according to these authors, such policies not only come from federal and state government, but they also reflect the interests of local school boards, unions, and community groups. In a 2007 study, Marks and Nance found that principals consistently viewed mandates from state government as constraints on their ability to influence supervisory decisions. Other studies have reported similar dynamics, but have focused attention on the consequences of demands from federal and local authorities (e.g., Gardiner et al., 2008; Seashore-Louis & Robinson, 2012). In fact, after shadowing 24 urban principals in Chicago, Morris and associates (1982) concluded that only when the principals executed “extrabureaucratic” maneuvers were they able to focus sufficient attention on instructional matters.

Because some researchers have already demonstrated that locale seems to influence instructional leadership of principals and other researchers have shown that level of bureaucratization seems to influence the implementation of school reform, I believed it was important to include both variables in a model testing the associations between several contextual variables and principals’ allocation of time to instructional leadership. My study testing this model provided insights that have a bearing on educational reform. Such reform is a significant concern of principals, superintendents,
and policy makers, and therefore findings from this study offer potential guidance to all three groups. Some possible uses of the study’s findings are discussed below.

**Implications for practice.** If instructional leadership is important in schools that are facing stressors such as low community SES or high student mobility, then this study points to the need to help principals in such schools attend to instructional matters. Principals can take certain actions themselves, but often they require support from their superintendents.

Notably, principals who need more time to devote to instructional leadership depend on their superintendents to reduce the number of bureaucratic requirements with which they must deal. Or their superintendents might employ assistant principals or teacher leaders to handle some of the managerial work that traditionally falls to the principal. Principals in high-needs schools might also work with their superintendents to arrange for the employment of support staff (e.g., instructional coaches or curriculum supervisors), who could provide their schools with greater amounts of instructional leadership, even if that leadership were to come from personnel other than the principals themselves.

For practicing principals, findings from the study offer help in making sense of the experiences they are encountering. For example, since the study shows that perceptions of district bureaucracy works counter to instructional leadership, principals who themselves are coping with unreasonable bureaucratic requirements might benefit from the perspective of others whose experiences are similar. Of course, even if the study did not show evidence of such an association, practicing principals would still need to
reexamine their own routines and circumstances to identify ways to free up time and energy for the work of instructional leadership.

The findings of my study also offer insights that can help superintendents and school boards think about their districts’ needs for instructional leadership in relation to contextual circumstances that might limit opportunities for such leadership. For example, because the study demonstrated that high student mobility and low SES impede principals’ ability to devote time to instructional leadership, the superintendents and school boards in districts facing these challenges might develop strategies to increase principals’ autonomy and sphere of influence for addressing instructional matters. For example, they might subdivide schools into “schools-within-schools” and employ separate administrative teams for each of these smaller units.

Since the study does reveal an association between contextual variables and allocation of time to instructional leadership, superintendents in troubled districts need to look more closely at the personal characteristics of principals or interpersonal relations in the schools to identify constraints on instructional leadership. Furthermore, since the study shows that bureaucratization occurs independently of locale or district size, then superintendents and school boards in troubled districts need to interrogate their own practices to identify policies, requirements, and cultural norms that keep principals from exercising instructional leadership.

School boards and superintendents might also want to develop policies that limit intra-district mobility and open enrollment. Or they might create school attendance boundaries that promote the greatest mix of students, thereby keeping the district from
experiencing high concentrations of students from low-SES homes in certain schools but not others.

Additionally, leaders in districts with high levels of student mobility might try to find strategies for integrating such students into the curriculum in ways that allow those students to progress without becoming overwhelmed. For example, they might develop curriculum-based placement tests to determine where in a curriculum sequence each new student should be placed. And they might develop routines for in-depth communication with the schools in which transient students were previously enrolled.

Policy makers might also draw on findings from my study and related research when they think about the implications of the policies already on the books and new policies being considered. They may want to reevaluate mandates that already require principals to allocate a considerable amount of their time to managerial leadership, and they may want to reconsider policies that intend to improve instructional leadership but actually have the unintended consequence of increasing the need for managerial leadership.

For example, the Ohio Teacher Evaluation System, which purports to improve instruction, also seems to require increases in the managerial leadership that principals need to provide. A 2013 joint study by the Ohio Association of Elementary School Administrators and Ohio Association of Secondary School Administrators concluded that although principals appreciated the fact that the OTES framework enhanced their instructional leadership image, they also acknowledge that the framework as it existed back then required them to reduce the amount of time they spent on instructional
leadership activities such as: informal classroom visits, planning staff development and reading or researching educational literature. Policy makers therefore should determine ways to change the policy so that principals (especially those in schools with high student mobility and low SES) can devote their time to implementing the system with fidelity yet without becoming bogged down by administrative paperwork and other requirements. Policy makers might consider, for instance, whether or not some of the managerial tasks required by the teacher evaluation system can be removed or reduced in order to give principals the maximum amount of time to devote actually to helping teachers improve instruction.

Prescriptions for policy makers are:

1. Conduct a statewide analysis of principals’ time allocations and school performance.

2. Based upon the findings of the principals’ time allocation study, provide recommendations to districts for the workload of principals.

3. Provide professional development on time allocation that places an emphasis on instructional leadership.

4. Commission the creation of a standardized digital tool to assist with data collection and management required by the teacher evaluation system required by the state (or, in some cases, by the district).

5. Develop required action plans for school districts that have high transience and low SES rates.
6. Develop or provide “best practices” models for how principals should allocate their time in light of the types of communities in which they work.

Implications for further research. The most important findings from this study suggest that SES and student mobility are associated with (and may have an impact on) how principals allocate their time. Subsequent research, however, needs to examine the specific factors that cause principals in some contexts to emphasize specific leadership domains over others. For example, why do principals with students who are highly transient and/or who come from low-SES backgrounds report spending less time on instructional leadership activities? Qualitative studies of principals in schools with high poverty and transience rates may provide deeper insights into the dynamics governing their choices, but additional quantitative research on such dynamics are warranted as well.

Subsequent qualitative research might involve interviews with principals as a way to seek insights about the specific issues they confront and why those issues might be influenced by the high transience and/or poverty rates of the students in their buildings. For example, how much time are such principals spending on paperwork or on meeting other compliance requirements associated with federal funding? Is paperwork the only contributor to their focus on managerial leadership? What about their political leadership? Might spending even some of their time trying to address complex and emotion-laden social and economic problems exhaust or dispirit principals in communities with many low-SES and transient families?
Additional research might involve an ethnographic study or case study that follows one or more principals throughout the course of a school year to see what their leadership practices entail and if their leadership activities change during different parts of the school year. In such a study, the researcher might focus on the dynamics governing the relationship between the principal and his or her assistant principals and staff and how those dynamics influence decisions about the allocation of time. Or it might direct particular attention to one occasion for providing instructional leadership, such as interaction with teacher-based teams, and investigate how such teams shape and respond to principals’ use of instructional leadership practices.

Additional quantitative research, perhaps with a focus on principals in schools with high poverty and transience rates, might also provide significant insights into the underlying forces dictating their choices and actions. Some important research questions that might be answered using quantitative methods (e.g., surveys, post-hoc analyses of extant data) include the following:

1. Do principals really believe they should be providing instructional leadership?
2. Do superintendents support instructional leadership sufficiently to provide principals with relief from their managerial burdens?
3. Is principals’ perception of level of bureaucracy associated with extrinsic measures of bureaucratic complexity?
4. Do policy makers really believe the Ohio Principal Evaluation System has produced the desired effect of increasing instructional leadership?
5. Are the ways rural, charter, and private school principals allocate their time influenced by the same contextual variables as those that influence their urban and suburban counterparts?

6. Do principal, superintendents, and teachers believe the Ohio Teacher Evaluation System actually increases the amount of time and energy principals devote to managerial leadership?

Summary

This chapter reviewed the results of my study and offered interpretations of those results. One of the study’s primary findings was that, after considering exogenous variables related to schools, locale did not account for the proportion of time principals devoted to any of the three leadership domains. It also found that years in education and student mobility rates were predictors of time allocated to instructional leadership, while perceived bureaucracy, years in education, and SES were significant predictors of time allocated to managerial leadership. A third finding was that none of the exogenous variables, singularly or combined, were predictors of time devoted to political leadership.

The chapter also provided some potential explanations for the associations it revealed. Prevailing wisdom suggests that locale influences the conditions principals face, even if, as my study showed, it does not influence how they choose to allocate their time. Certainly low SES, high mobility rates, and district bureaucracy levels are, in some parts of the country, associated with locale. But even in these places, it may be that these conditions and not locale itself are what influence principals to allocate their time in particular ways. In short, this study supported findings from previous research by
demonstrating that contextual factors influence principals’ leadership. It offered a
different perspective, though, by uncovering the influence of certain conditions (e.g.,
SES, mobility rates) that sometimes are associated with locale.

The chapter concludes with recommendations for further research and for
educational policy and practice. Subsequent research needs to examine the specific
factors that cause principals in some contexts to emphasize specific leadership domains
over others. A deeper examination of the specific issues confronting principals and how
they are influenced by high transience and/or poverty rates is also warranted.

If instructional leadership is to be valued above the other leadership domains,
perhaps because of its direct or indirect influence on students’ learning, superintendents
and policy makers need to develop ways to help principals in schools with the
aforementioned contextual challenges attend to such matters. My study points to
particular conditions that may interfere with principals’ ability to devote most of their
energy to helping teachers offer more powerful forms of instruction and obtain better
results with children and youth.


Ohio Department of Education.


The Center For Comprehensive School Reform And Improvement. (2005, September). Retrieved from The Center For Comprehensive School Reform and Improvement: [http://www.centerforesri.org](http://www.centerforesri.org)


Appendix A: Request for Permission to Modify Survey Instrument

Mr. Lewis

That would be o.k. as long as you give us appropriate credit. If you intend to publish later, we would be glad to cooperate.

Sincerely

Mohamad G. Alkadry, Ph.D.
Associate Professor of Urban Studies & Public Administration
College of Business and Public Administration
Old Dominion University
2094 Constant Hall, Norfolk, VA 23529
(757) 683-6049 Office, (757) 683-4886 Fax
malkadry@odu.edu

From: CLewis2480@columbus.k12.oh.us [mailto:CLewis2480@columbus.k12.oh.us]
Sent: Tuesday, March 09, 2010 11:49 AM
To: rcnyhan@fau.edu; Alkadry, Mohamad G.
Subject: Request for Permission

Dr. Alkadry and Dr. Nyhan,

My name is Colon Lewis and I am an Education Administration doctoral student at Ohio University. I am in the process of designing a study that will allow me to compare and predict the differences in time allotted to instructional leadership tasks by urban and suburban principals. I intend to examine how external factors such as school district bureaucracy influences this time spent on task. This brings me to my request. I read your study entitled: The Impact of Rational Organizations on Public Administrators: A Structural Equation Model. I am requesting permission to make minor adaptations to your survey instrument on "bureaucratization" to meet the needs of the study. I would only be using the four latent constructs of Formalization, Belief in Policy Objectivity, Perception of Empowerment and Bureaucratization. I would tailor the instrument to school-based administrators. I intend to conduct a pilot test within the school district I am currently working. Thank you in advance for your time and consideration on this request. I look forward to hearing from you.

Colon T. Lewis
Principal
Indianola MST Middle School
Appendix B: Instructional Leadership Activity Domains

Table B-1
Instructional Leadership Activity Domains

<table>
<thead>
<tr>
<th>Policy Document</th>
<th>Definition of Instructional Leadership</th>
<th>Instructional Leadership Activity Domains</th>
</tr>
</thead>
</table>
| Ohio Standards for Principals (2005) | “Effective principals communicate and share leadership to engage all educators in realizing a vision for high-quality teaching and improved student learning and achievement (p. 41).” | 1. Creation of shared vision and clear goals for continuous improvement.  
2. Support for the implementation of high-quality; standards based instruction that results in higher levels of achievement for all students. (Standard 2)  
3. Establishment and maintenance of collaborative learning and shared leadership to promote learning and achievement of all students. (Standard 4) |
| Interstate School Leaders Licensure Consortium: Standards for School Leaders (2008) | Effective school leaders are strong educators, anchoring their work on central issues of learning and teaching and school improvement. (ISLLC, 1996, p. 5) | 1. Facilitating the development, articulation, implementation, and stewardship of a vision of learning that is shared and supported by the school community. (Standard 1)  
2. Advocating, nurturing and sustaining a school culture and instructional program conducive to student learning and staff professional growth. (Standard 2) |
| Alberta Ministry of Education: Principal Quality Practice Guideline (2009) | “School principals must have a deep and thorough knowledge of teaching and learning so that they are able to serve as instructional, educational and organizational leaders focused on the school’s core purpose (p. 3).” | 1. Demonstrates a sound understanding of current pedagogy and curriculum. (Leadership Dimension 4)  
2. Implements strategies for addressing standards of student achievement. (Leadership Dimension 4)  
3. Ensures that student assessment and evaluation practices throughout the year are fair, appropriate and balanced. (Leadership Dimension 4) |
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Ensures that appropriate pedagogy is utilized in response to various dimensions of student diversity. (Leadership Dimension 4)</td>
</tr>
<tr>
<td>5.</td>
<td>Fosters a culture of high expectations for students, teachers and other staff. (Leadership Dimension 3)</td>
</tr>
</tbody>
</table>
### Appendix C: Managerial Leadership Activity Domains

Table B-2
Managerial Leadership Activity Domains

<table>
<thead>
<tr>
<th>Policy Document</th>
<th>Definition of Managerial Leadership</th>
<th>Managerial Leadership Activity Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio Standards for Principals (2005)</td>
<td>“Effective principals allocate resources and manage school operations in order to ensure a safe and productive learning environment (p. 40).”</td>
<td>1. Establish and maintain a safe school environment. (Standard 3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Create a nurturing learning environment that addresses the physical and mental health needs of all. (Standard 3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Allocate resources, including technology, to support student and staff learning. (Standard 3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Institute procedures and practices to support staff and students and establish an environment that is conducive to learning. (Standard 3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Understand, uphold and model professional ethics, policies, and legal codes of professional conduct. (Standard 3)</td>
</tr>
<tr>
<td>Interstate School Leaders Licensure Consortium: Standards for School Leaders (2008)</td>
<td>“A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment (p. 14).”</td>
<td>1. Knowledge of learning, teaching and student development is used to inform management decisions. (Standard 3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Operational procedures are designed and managed to maximize opportunities for successful learning. (Standard 3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Collective bargaining and other contractual agreements related to the school are effectively managed. (Standard 3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. School plant, equipment, and support systems operate safely, efficiently and effectively. (Standard 3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Time is managed to maximize the attainment of organizational goals.</td>
</tr>
</tbody>
</table>


Alberta Ministry of Education: Principal Quality Practice Guideline (2009)

<table>
<thead>
<tr>
<th>Alberta Ministry of Education: Principal Quality Practice Guideline (2009)</th>
<th>“School principals must manage the school operations and resources to ensure a safe, caring, and effective learning environment (p. 6).”</th>
</tr>
</thead>
</table>
| (Standard 3) | 1. Effectively plans, organizes and manages the human, physical and financial resources of the school and identifies the areas of need. (Leadership Dimension 6)  
2. Ensures that school operations align with legal frameworks such as: provincial legislation, regulation and policy; as well as school authority policy, directives and initiatives. (Leadership Dimension 6)  
3. Utilizes the principles of teaching, learning and student development to guide management decisions and the organization of learning. (Leadership Dimension 6) |
### Appendix D: Political Leadership Activity Domains

Table B-3
Political Leadership Activity Domains

<table>
<thead>
<tr>
<th>Policy Document</th>
<th>Definition of Political Leadership</th>
<th>Political Leadership Activity Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio Standards for Principals (2005)</td>
<td>“Effective principals engage parents and community members in the educational process and create an environment where community resources support student learning, achievement and well-being (p. 40).”</td>
<td>1. Promotion of a collaborative learning culture. (Standard 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Shared leadership with staff, students, parents, and community members. (Standard 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Utilization of community resources to improve student learning. (Standard 5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. Connection of the school with the community. (Standard 5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Establishment of expectations for the use of culturally responsive practices, which value and acknowledge diversity. (Standard 5)</td>
</tr>
<tr>
<td>Interstate School Leaders Licensure Consortium: Standards for School Leaders (2008)</td>
<td>“A school administrator is an educational leader who promotes the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context (p. 15).” “Additionally, they promote the success of all students by collaborating with families and community members, responding to diverse community</td>
<td>1. The school community works within the framework of policies, laws, and regulations enacted by local, state, and federal authorities. (Standard 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Public policy is shaped to provide quality education for students. (Standard 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Lines of communication are developed with decision makers outside the school community. (Standard 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. High visibility, active involvement, and communication with the larger community is a priority. (Standard 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Information about family and community concerns, expectations, and needs is used regularly. (Standard 4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. There is outreach to different business, religious, political, and service agencies</td>
</tr>
</tbody>
</table>
Alberta Ministry of Education: Principal Quality Practice Guideline (2009)

<table>
<thead>
<tr>
<th>Interest and needs, and mobilizing community resources (p.15).”</th>
<th>and organizations. (Standard 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“School principals must understand and respond appropriately to the political, social, economic, legal and cultural contexts impacting the school (p. 6).”</td>
<td>1. Advocates for the needs and interests of children and youth. (Leadership Dimension 7)</td>
</tr>
<tr>
<td>2. Demonstrates knowledge of local, national, and global issues and trends related to education. (Leadership Dimension 7)</td>
<td></td>
</tr>
<tr>
<td>3. Assesses and responds to the unique and diverse community needs in the context of the school’s vision and mission. (Leadership Dimension 7)</td>
<td></td>
</tr>
<tr>
<td>4. Advocates for the community’s support of the school and the larger education system. (Leadership Dimension 7)</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E: Alkadry and Nyhan Survey Instrument

<table>
<thead>
<tr>
<th>Major Concepts</th>
<th>Latest Construct</th>
<th>Question</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formalization</strong></td>
<td>Rules matter more than what think</td>
<td>4.7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I get in trouble if I do not follow SOPs</td>
<td>5.2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I follow SOPs to the word</td>
<td>4.3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There are documented criteria for making one's decisions at work</td>
<td>4.2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is a SOP for everything</td>
<td>4.0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Belief in Policy Objectivity</strong></td>
<td>I have input</td>
<td>4.1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I have discretion</td>
<td>3.4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I have flexibility in implementing policy</td>
<td>4.1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I have no effect on policy making</td>
<td>4.0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I have no effect on policy implementation</td>
<td>3.7</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Only objective facts affect policy implementation in my agency</td>
<td>3.5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My beliefs are irrelevant</td>
<td>4.0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Perception of Empowerment</strong></td>
<td>I have to report my actions to a supervisor</td>
<td>3.8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My supervisor will know if I do something wrong</td>
<td>5.0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meeting needs is more important than following rules</td>
<td>4.3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My supervisor is held responsible for my actions</td>
<td>4.0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My supervisor oversees everything I do</td>
<td>3.4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I do not make decisions</td>
<td>3.4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel constrained by Policy/SOPs</td>
<td>4.0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can do something for a complaining client</td>
<td>3.8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Bureaucratization</strong></td>
<td>Clients are self-interested and narrow-minded</td>
<td>3.6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Regard for Citizen Opinions</strong></td>
<td>Complaining clients do understand importance of rules</td>
<td>4.0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When clients complain, they bring up good issues</td>
<td>3.7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Regard for Responsiveness</strong></td>
<td>Clients do not know what they want</td>
<td>3.6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I am experienced enough to know needs without having to listen</td>
<td>3.0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I know what is best for my client</td>
<td>4.1</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

* Item numbers 1, 2, 15, 16, and 20 – 26 were not used on the final instrument.
Appendix F: Lewis Survey Instrument

Roles of the Middle School Principal

PART I.

Instructions: The activities performed by middle school principals can be divided into three categories – all of which are important to the performance of the principal’s role. Please look at the activities described under each category below; then estimate what percentage of your work time you normally spend on each category of activities. Please be careful to estimate the percentages of time actually spent on work in each category, rather than on how you would prefer to spend your time. Total time spent on the activities in all three categories should equal 100%.

**POLITICAL** activities include, but are not limited to the following types of functions:
- Securing funding
- Distributing resources
- Negotiating with parents and outside agencies
- Lobbying groups outside of the school
- Listening and responding to concerns of various constituents
- Attending community events

Percentage of time spent on Political activities = ______ %

**INSTRUCTIONAL** activities include, but are not limited to the following types of functions:
- Shaping the vision and mission of the school
- Communicating with others about the mission and vision of the school
- Conducting classroom observations
- Leading professional development activities
- Facilitating the work of professional learning communities
- Reading educational research in order to discover promising instructional practices
- Analyzing data in order to identify educational needs
- Developing strategies for educational improvement
• Reviewing curriculum materials

Percentage of time spent on Instructional activities = _____%

**MANAGERIAL** activities include, but are not limited to the following types of functions:
• Selecting teachers
• Developing a master schedule
• Enforcing contract provisions
• Enforcing discipline policies
• Overseeing provisions for making the school safe
• Dealing with attendance concerns
• Developing newsletters and other forms of communication
• Engaging in facilities maintenance and planning
• Budgeting
• Evaluating supplemental personnel
• Writing letters and emails
• Supervising of extracurricular activities
• Completing paperwork

Percentage of time spent on Managerial activities = _____%
PART II.

Instructions: Using the scale provided below, indicate the extent to which each condition accurately reflects the organizational culture and climate of your school district.
Scale: (1) GE = Great Extent, (2) ME = Moderate Extent, (3) LE = Limited Extent, (4) NA = Not At All

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
<tr>
<td>GE</td>
<td>ME</td>
<td>LE</td>
<td>NA</td>
</tr>
</tbody>
</table>

1. I am expected to follow policies and procedures to the letter.
2. I am expected to adhere to specific criteria for making decisions.
3. There is a policy and procedure for everything.
4. I have input.
5. I have discretion.
6. I have flexibility in implementing policy.
7. I have no effect on policy making.
8. I have no effect on policy implementation.
9. Only objective facts affect policy implementation in our school district.
10. My beliefs are irrelevant to what goes on in the district.
11. I have to report my actions to a supervisor.
12. My supervisor will know if I do something wrong.
15. I feel constrained by policies and procedures.
Gender: M or F

Years of experience as a teacher:

Years of experience as a principal:

Total years of experience in education:
Appendix G: Estimated Marginal Means by Locale

General Linear Model

<table>
<thead>
<tr>
<th>Locale</th>
<th>Value Label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urban</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>Suburban</td>
<td>91</td>
</tr>
<tr>
<td>Effect</td>
<td>Value</td>
<td>F</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>Intercept</td>
<td>.514</td>
<td>56.107*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.486</td>
<td>56.107*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>1.059</td>
<td>56.107*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>1.059</td>
<td>56.107*</td>
</tr>
<tr>
<td>Size</td>
<td>.009</td>
<td>.484*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.991</td>
<td>.484*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.009</td>
<td>.484*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.009</td>
<td>.484*</td>
</tr>
<tr>
<td>Minority</td>
<td>.001</td>
<td>.041*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.999</td>
<td>.041*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.001</td>
<td>.041*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.001</td>
<td>.041*</td>
</tr>
<tr>
<td>Mobility</td>
<td>.046</td>
<td>2.541*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.954</td>
<td>2.541*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.048</td>
<td>2.541*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.048</td>
<td>2.541*</td>
</tr>
<tr>
<td>SES</td>
<td>.037</td>
<td>2.053*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.963</td>
<td>2.053*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.039</td>
<td>2.053*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.039</td>
<td>2.053*</td>
</tr>
<tr>
<td>BureauScale</td>
<td>.024</td>
<td>1.324*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.976</td>
<td>1.324*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.025</td>
<td>1.324*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.025</td>
<td>1.324*</td>
</tr>
<tr>
<td>Q20</td>
<td>.034</td>
<td>1.862*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.966</td>
<td>1.862*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.035</td>
<td>1.862*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.035</td>
<td>1.862*</td>
</tr>
<tr>
<td>Q17</td>
<td>.010</td>
<td>.551*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.990</td>
<td>.551*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.010</td>
<td>.551*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.010</td>
<td>.551*</td>
</tr>
<tr>
<td>Locale</td>
<td>.019</td>
<td>1.045*</td>
</tr>
<tr>
<td>Wilks' Lambda</td>
<td>.981</td>
<td>1.045*</td>
</tr>
<tr>
<td>Hotelling's Trace</td>
<td>.020</td>
<td>1.045*</td>
</tr>
<tr>
<td>Roy's Largest Root</td>
<td>.020</td>
<td>1.045*</td>
</tr>
</tbody>
</table>

a. Exact statistic
b. Design: Intercept + Size + Minority + Mobility + SES + BureauScale + Q20 + Q17 + Locale
### Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III Sum of</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>Instructional</td>
<td>4301.767&lt;sup&gt;a&lt;/sup&gt;</td>
<td>8</td>
<td>537.721</td>
<td>2.154</td>
<td>.037</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>4505.757&lt;sup&gt;b&lt;/sup&gt;</td>
<td>8</td>
<td>563.220</td>
<td>2.121</td>
<td>.040</td>
</tr>
<tr>
<td>Intercept</td>
<td>Instructional</td>
<td>2204.240</td>
<td>1</td>
<td>2204.240</td>
<td>8.828</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>2896.674</td>
<td>1</td>
<td>2896.674</td>
<td>10.907</td>
<td>.001</td>
</tr>
<tr>
<td>Size</td>
<td>Instructional</td>
<td>222.214</td>
<td>1</td>
<td>222.214</td>
<td>.890</td>
<td>.348</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>99.645</td>
<td>1</td>
<td>99.645</td>
<td>.375</td>
<td>.541</td>
</tr>
<tr>
<td>Minority</td>
<td>Instructional</td>
<td>.023</td>
<td>1</td>
<td>.023</td>
<td>.000</td>
<td>.992</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>6.241</td>
<td>1</td>
<td>6.241</td>
<td>.023</td>
<td>.878</td>
</tr>
<tr>
<td>Mobility</td>
<td>Instructional</td>
<td>1267.580</td>
<td>1</td>
<td>1267.580</td>
<td>5.077</td>
<td>.026</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>797.354</td>
<td>1</td>
<td>797.354</td>
<td>3.002</td>
<td>.086</td>
</tr>
<tr>
<td>SES</td>
<td>Instructional</td>
<td>836.886</td>
<td>1</td>
<td>836.886</td>
<td>3.352</td>
<td>.070</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>1077.518</td>
<td>1</td>
<td>1077.518</td>
<td>4.057</td>
<td>.046</td>
</tr>
<tr>
<td>BureauScale</td>
<td>Instructional</td>
<td>155.100</td>
<td>1</td>
<td>155.100</td>
<td>.621</td>
<td>.432</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>564.601</td>
<td>1</td>
<td>564.601</td>
<td>2.126</td>
<td>.148</td>
</tr>
<tr>
<td>Q20</td>
<td>Instructional</td>
<td>938.030</td>
<td>1</td>
<td>938.030</td>
<td>3.757</td>
<td>.055</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>700.282</td>
<td>1</td>
<td>700.282</td>
<td>2.637</td>
<td>.107</td>
</tr>
<tr>
<td>Q17</td>
<td>Instructional</td>
<td>57.554</td>
<td>1</td>
<td>57.554</td>
<td>.231</td>
<td>.632</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>227.584</td>
<td>1</td>
<td>227.584</td>
<td>.857</td>
<td>.357</td>
</tr>
<tr>
<td>Locale</td>
<td>Instructional</td>
<td>510.248</td>
<td>1</td>
<td>510.248</td>
<td>2.044</td>
<td>.156</td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>467.408</td>
<td>1</td>
<td>467.408</td>
<td>1.760</td>
<td>.187</td>
</tr>
<tr>
<td>Error</td>
<td>Instructional</td>
<td>26716.673</td>
<td>107</td>
<td>249.689</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>28418.208</td>
<td>107</td>
<td>265.591</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Instructional</td>
<td>233715.000</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>247580.000</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>Instructional</td>
<td>31018.440</td>
<td>115</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managerial</td>
<td>32923.966</td>
<td>115</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .139 (Adjusted R Squared = .074)
b. R Squared = .137 (Adjusted R Squared = .072)
### Estimated Marginal Means by Locale

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Locale</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>36.163</td>
<td>4.209</td>
<td>27.820 - 44.506</td>
</tr>
<tr>
<td>Instructional</td>
<td>Suburban</td>
<td>43.351</td>
<td>1.824</td>
<td>39.735 - 46.967</td>
</tr>
<tr>
<td>Managerial</td>
<td>Urban</td>
<td>48.414</td>
<td>4.341</td>
<td>39.810 - 57.019</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>41.535</td>
<td>1.881</td>
<td>37.805 - 45.264</td>
</tr>
</tbody>
</table>

a. Covariates appearing in the model are evaluated at the following values: School Size = 617.06, Minority % = 309, Mobility Rate = .09617, SES = .45186, Bureaucracy Scale = 39.1466, Years in education = 17.76, Gender = 1.39.

### Pairwise Comparisons

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>(I) Locale</th>
<th>(J) Locale</th>
<th>Mean Difference</th>
<th>95% Confidence Interval for Differencea</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Suburban</td>
<td>-7.188</td>
<td>-.156 - 2.780</td>
</tr>
<tr>
<td>Instructional</td>
<td>Suburban</td>
<td>Urban</td>
<td>7.188</td>
<td>-.156 - 17.156</td>
</tr>
<tr>
<td>Managerial</td>
<td>Urban</td>
<td>Suburban</td>
<td>6.880</td>
<td>-.187 - 17.160</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>Urban</td>
<td>-6.880</td>
<td>-.187 - 17.160</td>
</tr>
</tbody>
</table>

Based on estimated marginal means
a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

### Multivariate Tests

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillai's trace</td>
<td>.019</td>
<td>1.045*</td>
<td>2.000</td>
<td>106.000</td>
<td>.355</td>
</tr>
<tr>
<td>Wilks' lambda</td>
<td>.981</td>
<td>1.045*</td>
<td>2.000</td>
<td>106.000</td>
<td>.355</td>
</tr>
<tr>
<td>Hotelling's trace</td>
<td>.020</td>
<td>1.045*</td>
<td>2.000</td>
<td>106.000</td>
<td>.355</td>
</tr>
<tr>
<td>Roy's largest root</td>
<td>.020</td>
<td>1.045*</td>
<td>2.000</td>
<td>106.000</td>
<td>.355</td>
</tr>
</tbody>
</table>

Each F tests the multivariate effect of Locale. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.
a. Exact statistic

### Univariate Tests

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast</td>
<td>510.248</td>
<td>1</td>
<td>510.248</td>
<td>2.044</td>
<td>.156</td>
</tr>
<tr>
<td>Error</td>
<td>26716.673</td>
<td>107</td>
<td></td>
<td>249.689</td>
<td></td>
</tr>
<tr>
<td>Managerial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast</td>
<td>467.408</td>
<td>1</td>
<td>467.408</td>
<td>1.760</td>
<td>.187</td>
</tr>
<tr>
<td>Error</td>
<td>28418.208</td>
<td>107</td>
<td></td>
<td>265.591</td>
<td></td>
</tr>
</tbody>
</table>

The F tests the effect of Locale. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.
Appendix H: Invitation to Participate in Pilot Study

Request for help with a pilot test:

Middle School Principals’ Perceptions of Contextual Influences on their Leadership Behaviors

Dear Principal:

My name is Colon T. Lewis. I am a doctoral student at Ohio University and principal of Gahanna Middle School West in Gahanna, Ohio. The reason I am writing to you is to ask for your participation in a pilot study. The pilot study is part of my dissertation research. I will be using information from the pilot to improve the instrument that I will be using for collecting data.

Taking the pilot and providing feedback about the instrument will take no more than 10 minutes. Your help will allow me to move forward with my research. I appreciate your willingness to assist with this process.

If you wish to participate in this study, please follow the link below:

Link to survey: [https://www.takecolonlewis’survey.com/Draft](https://www.takecolonlewis’survey.com/Draft)

I appreciate your willingness to participate and value your responses. Thank you for taking the time to consider this study.

Sincerely,

Colon T. Lewis
Appendix I: Reliability Analysis

Reliability Scale: ALL VARIABLES

<table>
<thead>
<tr>
<th>Case Processing Summary</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases</td>
<td>Valid</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>Excluded</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>184</td>
</tr>
</tbody>
</table>

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.803</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item-TOTAL Statistics</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input</td>
<td>35.7244</td>
<td>28.124</td>
<td>.525</td>
<td>.783</td>
</tr>
<tr>
<td>Discretion</td>
<td>35.7628</td>
<td>28.492</td>
<td>.523</td>
<td>.784</td>
</tr>
<tr>
<td>Flexibility</td>
<td>36.2179</td>
<td>30.081</td>
<td>.281</td>
<td>.802</td>
</tr>
<tr>
<td>Follow procedures</td>
<td>37.4295</td>
<td>30.401</td>
<td>.333</td>
<td>.797</td>
</tr>
<tr>
<td>Decision criteria</td>
<td>37.0064</td>
<td>30.097</td>
<td>.352</td>
<td>.796</td>
</tr>
<tr>
<td>Policy/Procedure</td>
<td>36.8333</td>
<td>29.843</td>
<td>.365</td>
<td>.795</td>
</tr>
<tr>
<td>Effect policy</td>
<td>35.9744</td>
<td>28.761</td>
<td>.422</td>
<td>.791</td>
</tr>
<tr>
<td>Effect</td>
<td>36.1346</td>
<td>27.691</td>
<td>.441</td>
<td>.791</td>
</tr>
<tr>
<td>Implementation</td>
<td>36.4423</td>
<td>31.551</td>
<td>.116</td>
<td>.812</td>
</tr>
<tr>
<td>Objective facts</td>
<td>35.9103</td>
<td>26.624</td>
<td>.627</td>
<td>.774</td>
</tr>
<tr>
<td>My beliefs</td>
<td>36.5833</td>
<td>28.399</td>
<td>.497</td>
<td>.786</td>
</tr>
<tr>
<td>Direct report</td>
<td>36.9231</td>
<td>30.239</td>
<td>.260</td>
<td>.803</td>
</tr>
<tr>
<td>Supervision</td>
<td>36.1282</td>
<td>29.519</td>
<td>.421</td>
<td>.792</td>
</tr>
<tr>
<td>Overseer</td>
<td>35.4167</td>
<td>28.993</td>
<td>.433</td>
<td>.791</td>
</tr>
<tr>
<td>Decision making</td>
<td>35.9872</td>
<td>27.600</td>
<td>.580</td>
<td>.779</td>
</tr>
</tbody>
</table>
Appendix J: Invitation to Participate in Actual Study

Dear Fellow Principal,

My name is Colon T. Lewis. I am a doctoral student at Ohio University and principal of Gahanna Middle School West in Gahanna, Ohio. The reason I am writing to you is to request participation from you in an on-line survey. The survey is part of my dissertation research study, which focuses on principals' use of time for various leadership activities.

I am surveying all intermediate, middle and junior high school principals in Ohio, and I need responses from as many principals as possible. The study is easy and convenient to complete. It is on-line and will take about 15 minutes to complete. Your participation in the study is voluntary, and your responses to the survey will be confidential. If you would like to participate in this study, please follow the link below:

**Follow this link to the Survey:**
[Take the Survey](http://ohed.qualtrics.com/WRQualtricsSurveyEngine/?Q_SS=8xnvS8VpCWYYTjf_9SGTaacEjlo5Ts9&_=1)

I appreciate your willingness to consider participation and would truly value your responses. Thank you for taking the time to consider this study.

Sincerely,

Colon T. Lewis

**Contact Information:** If you have any questions regarding this study, please contact [Colon T. Lewis at colonlewis@yahoo.com or 614-537-7719/Dr. Aimee Howley at howley@ohio.edu or 740-593-4402.]

If you have any questions regarding your rights as a research participant, please contact Jo Ellen Sherow, Director of Research Compliance, Ohio University, 740-593-0664.