WOMEN SECONDARY PRINCIPALS IN TEXAS: A LONGITUDINAL STUDY OF DIFFERENCES IN PERSONAL, PROFESSIONAL, LEADERSHIP, AND SCHOOL CHARACTERISTICS

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To the Faculty of Washington State University:

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I thought that acknowledgement pages were, *well a little hokey*, but now that I fully understand the magnitude of the roles that family and friends play in the completion of a dissertation, I have changed my mind. There is no way I can fully express the appreciation I have for all the people in my life who have supported me through this process, but there are a few people I must mention specifically. First, my husband Gary, I am not sure either of us knew you were capable of such patience. You have been my sounding board, advisor, critic, editor, and support through several degrees and certifications. This is it Gary - it is a terminal degree! Second, our daughters; Summerlynn and McKenze, thank you for listening, questioning, providing me with thought provoking perceptions and understanding when I said I cannot talk now, “I have to get back to work.” Of course, there are other members of my family who have always supported me. Thank you, Dad, for always encouraging me to reach a little higher and to never allow myself to be limited in what I do because of being *a girl*. Thank you to my brother Scott for not treating me like one. Thank you to all of the wonderful, intelligent women in my life who have modeled strength, a passion for learning and intolerance for racism and sexism (my grandmothers, mother, aunt, sister, and sister in law). Aunt Joan and Uncle Bob, thank you for understanding the ramifications of my undertaking and providing unwavering support for me and my daughters. Colleen and Ann, thanks for listening on all those long morning runs. You must know as much about my study as I do. Last but not least, thank you to my dissertation committee Dr. Kingrey, Dr. Furman and Dr. Gates, you have mentored, taught, supported and directed me. Your collective knowledge has been an invaluable asset to me. Earning a doctorate is definitely not a solo activity. Finally, Dr. Gates thank you for all the time, attention and expertise. You were *almost* as patient as my husband in this process!

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Abstract

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Despite movement toward equity given the institutionalization of affirmative action programs and policies, researchers document continued underrepresentation of women principals in secondary schools. Gender equity in the high school principalship possesses the key to unlocking many problems including poor outcomes for high school students to low representation of women superintendents. Researchers call for examination of progress for women in educational administration to formulate more equity responsive practices and policies. Research was conducted to describe and analyze differences between women secondary principals in Texas 2011 and 1998 on measures of (a) personal and professional characteristics, (b) leadership styles and practices, and (c) school organization. Forty-two percent of the 117 surveys sent to a representative sample of women principals in 2011 were returned and then merged with data gathered from a comparable sample surveyed in 1998. Fifty-three percent of the respondents in 2011 identified as Anglo European, 20% were Latina, 18% were African American, and 5% chose Native American. Women secondary principals in 2011 were
significantly more diverse in terms of ethnicity and age but no differences were noted in professional characteristics. Three-quarters of women in both years were found to possess a high task and high relationship leadership style; however a significant minority had shifted to a high task with low relationship style in 2011, which is indicative of a more directive leadership style. A significant and large reduction in leadership adaptability was observed. Women principals in 2011 reported high agreement and frequency of distributing various leadership functions, particularly for trust in team members, taking actions in the best interest of students, and support for the welfare of teachers. The schools led by the women principals in 2011 were found to possess higher percentages of students qualified as economically disadvantaged and were more urban. Finally, half of the schools in 2011 were rated Recognized by the Texas Education Agency, which was significantly higher than the 16% in 1998. The significance of study findings center on observed progress toward equity and women’s leadership effectiveness. Recommendations for training, recruitment, and hiring practices and policies are forwarded in the conclusions.
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Dedication

This dissertation is dedicated in loving memory of my father who always provided me with the love, support, and encouragement necessary to take the risks required to be better; whether it involved climbing a tree, gliding down a ski slope, walking on stilts, or pursuing the next level in my career. He made sure I knew that being a girl was not a limitation.
CHAPTER ONE
INTRODUCTION TO THE STUDY

The number of women principals at the secondary (middle and high) school level in the United States has remained nearly constant for the past decade, in spite of the large quantity of literature available that speaks in support of the ability of women to be strong leaders (Christman & McClellan, 2008; Robinson & Lipman-Bluman, 2003; Barker, 2001; Roser, Brown, & Kelsey, 2009). Nationally, the number of women secondary school principals grew from 22% in 1999 to 29% in 2008 (National Center for Education Statistics, 2009). In 2010, the Washington State Office of the Superintendent of Public Instruction website reported that for the 2007-2008 school year, 32.9% of secondary principals in Washington State were women, a small increase from 29.9% during the 1997-1998 school year. The majority of women secondary school principals serve at the middle school level. In the state of Texas, 29.8% of high school principal positions were held by women in the year 2006 (Roser et al., 2009).

According to the literature, the underrepresentation of women in secondary administration is an international phenomenon as well. Moreau, Osgood, and Halsall (2007) reported that women are “underrepresented in promoted posts, across all education phases” (p. 238) in the United Kingdom, and they found similar situations in France and Israel. Drayton and Cole-George (1991) reported a comparable phenomenon in the Caribbean. Young and Skrla (2003) asserted that “gender inequalities are one of the few cultural universals” (p. 84). Kruger (2008) stated that women are underrepresented in school leadership positions “in practically all countries” (p. 156).

The widespread underrepresentation of women in secondary school leadership positions invites a re-evaluation of the issues of women in school leadership. Further, it seems likely that
women’s reported strengths in collaborative leadership (Curley, 2007) would be of particular benefit at the middle and high school levels, where the size and complexity of the organization necessitate shared leadership in order achieve success. The pressure for increased academic achievement and graduation rates requires more effective instructional leaders at the secondary level. A number of researchers, (e.g., Smith & Andres, 1989; Roser et al., 2009; Andrews & Basom, 1990) suggest that women principals tend to be stronger instructional leaders than men because women spend more time on instructional issues and have taught longer than many of their male counterparts.

Chapter one continues by providing the background information to frame the study, a description of the problem, the purpose of the study, an overview of the research methods used including the ethical implications of using survey research, and a chapter summary with an outline of the dissertation chapters that follow.

**Background**

Coleman (2005) is not alone in her assertion that, “Questions related to leadership in education are usually considered without reference to gender and therefore gender related disadvantages are rarely discussed. There is now a general belief that equity issues for women are no longer a problem” (p. 16). A belief about gender equity at the office and school is not without support as researchers offer evidence which substantiates much progress since civil rights policies and initiatives were enacted in the 1960s (Stainback & Tomaskovic-Devey, 2009). And yet, such belief would appear to have overestimated progress made toward the adequate representation of women in managerial positions in business and government generally and in educational organizations specifically. In order to fully appreciate the phenomenon presented by the underrepresentation of women in secondary school leadership positions, it is important to understand: (a) factors that contribute to the phenomenon of underrepresentation,
(b) characteristics of the women who achieve the principalship, (c) changing definitions of leadership and leadership effectiveness as connected to gender, and (d) potential impacts of continued low admittance of women to secondary school administrative positions. The background for the study provides an overview of such issues to offer the study’s statements of problem and purpose. The review of literature offered in chapter two will provide a more exhaustive and detailed discussion of issues that are touched below as it focuses leadership, gender, and the secondary school principalship.

A great deal of research has been devoted to issues of gender and the barriers to educational administration that women face, such as discrimination in hiring and promotion practices, and socially constructed norms regarding gender roles (Young, 2005; Weber, Feldman, & Poling, 1981; Schmuck, 1993; Tallerico & Blount, 2004). Multiple authors have identified many barriers that women have encountered, currently and historically, when seeking traditionally male roles such as those in educational administration despite legislation of government policies and institutionalization of organizational programs designed to address such problems (Kalev, Kelly, & Dobbin, 2006). Indeed, scholarly interest in affirmative action has grown since the 2003 Supreme Court’s decision about the University of Michigan’s admission procedures. Cultural stereotypes suggesting that women are too emotional, are not strong enough, and should be at home raising children are a few of the perceptions faced by women seeking principal positions (Shakeshaft, Nowell, & Perry, 1991; Grogan, 1999; Young, 2005). While many of these barriers were easily seen, they have also turned out to be fairly robust. Researchers have also identified less predictable barriers, such as those created by women themselves. For example, women sometimes sabotage other women, and women are just as likely as men to discriminate against a woman, which contributes to the pattern of underrepresentation (Sherman, Munoz, & Pankake, 2008).
Even though the awareness of civil rights and fair hiring practices is greater than it has been in the past, women still tend to be hired into leadership positions and promoted at later ages, with more experience, and with more education than men (Roser et al., 2009; Shakeshaft et al., 1991). It is not surprising, therefore, that researchers find women tend to be better instructional leaders because they have generally spent more time in the classroom before being promoted, and that once in principal positions they focus more on instruction than their male counterparts (Smith & Andrews, 1989; Roser et al., 2009; Shakeshaft et al., 1991). Likewise, Andrews and Basom (1990) argued that women principals spend more time observing teachers and are more concerned with student achievement. The focus on academic achievement is an important attribute for school principals (Marzano, Waters, & McNulty, 2005), especially as the pressure and accountability regarding student achievement continue to rise. In addition to delayed hiring as administrators, networking and mentoring opportunities have been found to be fewer for women than men (Sherman et al., 2008) which contributes to the underrepresentation since who people know has been found to provide access to those responsible for decision making in organizations. Mentoring and career planning are especially significant issues for women who aspire to superintendent positions, because most superintendents are hired from secondary principalships, and networking is viewed as a critical element in acquiring and maintaining a superintendent position (Brunner, 2008; Sherman et al., 2008).

Christman and McClellan (2008) explored how some women administrators have managed to acquire and sustain leadership positions. The researchers compared traits of leadership that are considered feminine with those considered masculine to determine whether those characteristics that are assumed to be feminine helped to ensure that women succeeded in their leadership roles. The researchers expected that socially constructed norms generally attributed to women, such as the ability to be understanding, caring, and collaborative would be
noted as factors that contributed to the success of women administrators. Instead, the researchers found that women who were successful in administrative positions for long periods of time used strategies that were identified as both masculine and feminine. Christman and McClellan concluded that gendered norms alone were too simplistic for successful women administrators. Women in leadership positions must be very astute in using situational awareness and employ skills that are considered both masculine and feminine in order to deal with those situations effectively.

What is most intriguing about these arguments, however, is recent work that suggests the changing notions about leadership increasingly include those traits that have been viewed as feminine (Curley, 2007). For example, leadership theory by Burns (1978), Bennis (1990), Bass and Avolio (1994) and Kouzes and Posner (1987) present leadership as intimately tied to the work of nurturing, communicating, influencing, and managing emotions. Others note how current advice and norms of leading in organizations require leaders to relate to people through care, collaboration, facilitation, and consensus as well as navigate leveled hierarchies evident in shared decision making and distributed responsibilities (McFarland, Senn, & Childress, 1993; Marzano, Waters, & McNulty, 2005). Under socially constructed norms for leadership, the previously mentioned attributes are considered to be feminine. In fact, a Pew study (2008) reported that women scored higher than men on the majority of qualities that people associate with leadership.

Flexibility and relational ethics are two additional traits that have been attributed to women which have become increasingly important in today’s organizational environments. Both of these qualities have been incorporated into one of the major theories of leading, known as situational leadership (Hersey & Blanchard, 1982). Leaders, according to this model of
leadership, need to be adaptable and responsive to the people that are followers. Hersey and Blanchard state:

Situational Leadership is based on an interplay among (1) the amount of guidance and direction (task behavior) a leader gives; (2) the amount of socio-emotional support (relationship behavior) a leader provides; and (3) the readiness (maturity) level that followers exhibit in performing a specific task, function or objective. (p. 151)

The ability of the leader to recognize that different leadership styles are needed for different situations is referred to as *situational awareness*. According to Hersey and Blanchard, the ability of the leader to adapt his or her leadership style based on the situation in order to influence followers is a critical indicator of leader effectiveness. According to this model, there is no one best way to lead. A leader must be adaptable and change his or her behavior based on the needs of the people (the situation) in a particular context.

The lack of gender equity for women in managerial positions in organizations combined with the changing definitions of what constitutes leadership has encouraged researchers to explore differences in the leadership of men and women. Eagly (2007) in referencing her most recent meta-analysis of 47 studies on leadership and gender, which was co-authored with Johannesen-Schmidt and van Engen in 2003, concluded

female leaders were more transformational than male leaders. Among the five aspects of transformational leadership, women most exceeded men on individualized consideration, which encompasses supportive, encouraging treatment of subordinates. Female leaders were also more transactional than male leaders in their contingent reward behaviors, whereas male leaders were more likely than female leaders to manifest the two other aspects of transactional leadership (active and passive management by exception) as well
as laissez-faire leadership. All of these differences between male and female leaders were small, consistent with substantially overlapping distributions. (p. 5)

The leadership studies examined in their meta-analysis were limited to those that used the Multifactor Leadership Questionnaire-Form 5X (MLQ-5X). In a prior meta-analysis, Eagly and Johnson (1990) gathered 162 studies, some of which used Hersey and Blanchard’s Leadership Effectiveness and Adaptability Description (LEAD) for gathering data. While Eagly and Johnson’s arguments and conclusions are many, it is sufficient that they noted across the studies that women tended to use more participative style of leading as compared to a more directive style observed for men. Krum and Gates (2000) reported similar results in their representative sample of Texas school principals and observed that the women administrators possessed higher adaptability scores as compared to men on Hersey and Blanchard’s LEAD Self instrument. The relevance of such findings is enhanced through other studies that argue situational leadership as a necessary component of principal practice to achieve desired learning outcomes (Marzano et al., 2005; Gronn, 2002; Spillane, 2006; Louis et al., 2010). In contrast to the aforementioned evidence, it is appropriate to recognize that other scholars reach different conclusions given the small and mixed effects observed throughout this research on gender differences and leadership. For example, Dobbins and Platz (1986) have declared the evidence as weak at best and suggested a moratorium on the investigation.

Whether an individual agrees or not with Dobbins and Platz’s (1986) position given their concerns with ambiguities in measurement and probability, the problem of continued low admittance of women into secondary school positions remains unquestionable and relevant. First, women principals often lead high poverty schools in urban settings (National Center for Education Statistics, 2003) where strong instructional leaders are particularly needed, and therefore the continued underrepresentation of women may jeopardize progress toward closing
the achievement gap. Second, failure to examine the progress of women administrators stifles social change toward the acceptance of women in leadership positions. Third, more applicants for the principalship are needed. In a report conducted by the Educational Research Service (ERS) (2000), *The Principal, Keystone of a High-Achieving School: Attracting and Keeping the Leaders We Need*, documents the growing shortage of school principals nationwide. Without an increased number of women secondary principal candidates, the reported principal shortage will be more difficult to resolve.

**Statement of the Problem**

Despite movement toward equity given the implementation and institutionalization of affirmative action oriented programs and policies, a substantial volume of research documents the continued underrepresentation of women leaders at the secondary level and describes ongoing employment barriers faced by women (Berry & Beach, 2006; Blount, 1999, 2000; Brock, 2008; Eagly & Carli, 2007; Grogan, 1999; Kruger, 2008; Schmuck, 1993; Shakeshaft et al., 1991; Shields, 2003; Young & Skrla, 2003). The sting of such findings is added to by additional conclusions embedded in the literature that point to the advantages of women as leaders (Curley, 2007; Eagly & Carli, 2007; Chrisman & McClellan, 2008; Gates & Siskin, 2001; Hyde, 2005; Kruger, 2008; Roser et al., 2009). Secondary schools have never been in greater need of effective leadership than today, given the various challenges educators face including managing reductions in resources while improving student outcomes in academics, health, and citizenship.

The ongoing disproportionality of women in such prominent positions in educational administration suggest that sexism, bias, and other forms of discrimination are present in hiring and related decisions and processes. This is a problem that is not unique to education. Researchers in many disciplines, therefore, have undertaken or are engaging in work to identify
the efficacy of affirmative action programs and related strategies that are intended to diminish or
counter prejudicial attitudes and chauvinistic practices. For example, Kalev et al. (2006)
examined federal data taken on the private sector from 1971 to 2002 and concluded,

Broadly speaking, our findings suggest that although inequality in attainment at work
may be rooted in managerial bias and the social isolation of women and minorities, the
best hope for remedying it may lie in practices that assign organizational responsibility
for change…Structures that embed accountability, authority, and expertise (affirmative
action plans, diversity committees and taskforces, diversity managers and departments)
are the most effective means of increasing the proportions of white women, black
women, and black men in private sector management….Practices that target managerial
bias through feedback (diversity evaluation) and education (diversity training) show
virtually no effect in the aggregate. (p. 611)

In education, Mertz (2006) analyzed administrator employment data from 1972 to 2002 for the
50 largest urban school districts in the United States. She found a significant reduction in the
gender gap in all positions except for that of the superintendent. Mertz attributed this outcome to
be the result of differences in hiring processes between superintendents and other administrators.
It is worth noting that while the imbalance in the proportion of male to female high school
principals had grown smaller during this period time, it remained substantial. At the time of this
study women held 41% of these positions in urban districts.

The importance of findings from longitudinal studies can be appreciated as critics
increasingly call for the discontinuance of affirmative action oriented policies and programs.
Critics justify the repeal of equal opportunity mandates by (a) arguing the lack of need for
diversity programs, (b) reproving such actions as reverse discrimination, and (c) suggesting these
strategies educate, hire, and promote under qualified applications (Crosby, Iyer, & Sincharoen,
Advocates for equal opportunity have also raised concerns about the negative effects and weaknesses of affirmative action. Rather than calling for the repeal of government legislation and cessation of organizational procedures, they advanced policy adjustments and alternatives based on research to better serve social progress (Morahan, Rosen, Richman, & Gleason, 2011). The seriousness of gender inequity in workplace management generally, and in school administration particularly, invites ongoing examination of the problem to document the nature of progress given the implementation of affirmative action, and to provide guidance for proposed modifications to these programs and policies.

Previous research has shown that the problem is neither evident nor concerning given low numbers or percentages alone, but is manifest and substantive given the ways the lack of representation impacts norms, values, and beliefs both social and organizational. Eagly (2007) and Kanter (1976) both provide compelling argument about how the underrepresentation of women in managerial positions influences such diverse issues as who people think can lead in organizations to how those who lead are rewarded. Researchers are interested in observing indicators of cultural change such as new norms, modification of attitudes, and other related adaptations in social phenomena. Noting the implication of this research given the increased access to positions in school administration, Mertz (2006) called for investigation to assess how “increases in the numbers of female administrators have affected the culture of schools, what happens to students in those schools, or existing male-defined conceptions of leadership” (p. 556).

The issues embedded in Mertz’s (2006) request are multiple and can be broken out given the above statement of the problem into the following three areas. First, while researchers have delineated the continued underrepresentation of women in secondary school principal positions, much less is known about who these women are including their personal characteristics (e.g.,
ethnicity, age, marital status, etc.) and professional characteristics (e.g., level of education, years of teaching experience, years as assistant or vice principal, etc.). The preponderance of research on women school leaders has employed a case study methodology that provides contextually specific description but lacks generalizability. How the characteristics of these women have changed over time is also something of a mystery. Second, scholars of leadership have revised how they understand and define this concept. Leadership theory has been challenged and stimulated by those in the field who have been concerned about and interested in gender. While researchers have recognized and redefined leadership as part of a response to description and analysis of women as educational leaders, less is known about how the leadership of women secondary school principals has changed. In other words, the changing definition can be seen as having hidden or compounded the ability to assess differences over time in the leadership styles and practices of women given that there has been no standard for comparison. Third, little attention has been given to identifying the organizational characteristics of secondary schools that are headed by women principals. Although there is some indication that progress has been made in urban schools, less is known about the particulars of these schools. The diversity in schools is large and it matters what kinds of schools women are providing leadership for. Student performance, school size, percentage of students qualified for free and reduced price meals, etc., all contribute to visibility and prestige of the position. Without more detailed information, it is unclear where or what kinds of secondary schools women are providing leadership for and how these schools have changed over time.

The above three problem areas can be simplified and stated as three general questions (a) what are the personal and professional characteristics of women secondary school principals and on which of these characteristics are differences over time evident? (b) what are the leadership styles and practices of women secondary school principals and in what ways have they lead
changed over time? and (c) what are the organizational characteristics of the secondary schools headed by women and how have the schools changed over time? Research is needed to address these questions to provide more clarity into social progress or the lack there of (i.e., beyond the numbers that depict the underrepresentation) and to obtain information for formulating more responsive organizational practices and effective educational policies that states and districts could employ to encourage hiring the most qualified applicants for this important leadership position.

**Purposes for the Study**

The continued low representation of women in secondary leadership positions, speaks to the need for further study regarding the issues of gender and leadership in educational organizations. The three general questions delineated at the end of statement of the problem provide the framework for the dissertation’s purposes and subsequent research questions that it addressed. The longitudinal design inherent in each of the three questions meant identifying and gaining access to historical and representative data about women secondary principals from which comparisons could be drawn to women who currently hold the position of secondary school principal. The data needed to include various measures related to the personal and professional characteristics of these women, their leadership, as well as information about the schools that they administered. In view of the fact that 2003 was the year in which the most recent major decision concerned with Title IX occurred, it provided a natural partition for the function of differentiating or indentifying change. Data gathered from the 1998 Collaborative Leadership Survey of Texas principals met these requirements and were secured from its principal investigator. The next section of this chapter and chapter three will speak more about the dissertation’s method, design, and data. Identifying these components of the study was necessary for understanding the study’s specific purposes and addressed research questions.
The purposes for the study were twofold. First, the research sought to describe women secondary school principals in Texas including their personal and professional characteristics as well as information about how they lead. The other component of this description centered on examining the school data of these women principals. The following research questions were encompassed under this purpose: (a) who are the women principals of Texas’ secondary schools? (b) what are their leadership styles? (c) how do women secondary school principals in Texas distribute leadership? and (d) what are the organizational characteristics of secondary schools in Texas that possess women principals? The second purpose of the study was to examine differences between the 2011 sample and 1998 sample. There are three research questions encompassed under this purpose: (e) what are the differences between women who are secondary school principals in Texas in 2011 as compared to women who were principals in 1998 in terms of the personal and professional characteristics? (f) what are the differences between women who are secondary school principals in Texas in 2011 as compared to 1998 in terms of their leadership styles? and (g) what are differences between the Texas secondary schools administered by women in 2011 and the Texas secondary schools administered by women in 1998? By answering these questions the study provides information to better understand the nature of change over the past 13 years for women administrators of secondary schools in Texas. These are answers to questions that offer insight and will be useful in reducing future underrepresentation. For example, it is information that can be used to better identify who and where women have been successful or are experiencing ongoing difficulties overcoming barriers in recruitment, training, and hiring. Further, the study examines the leadership styles and practices of secondary women as well as the student performance evident in these secondary schools. Evidence is thus offered that supports that women possess the ability to effectively lead large and complex organizations successfully.
Methods

The following section provides an overview of the study’s methods. A complete description of the methods used for gathering, managing, and analyzing data is found in chapter three of the dissertation. According to Gay and Airasian (2003), quantitative descriptive studies provide information regarding the attitudes and behaviors of groups of people, making it an appropriate choice for this study given its problem, purposes, and research questions. The study employed a longitudinal design, which is defined by Gay and Airasian as a study that collects data two or more times from different sample groups in order to measure changes over time. Specifically, surveys distributed to women principals in Texas at two times were employed in the study. The first survey occurred in 1998 and the second in 2011.

Both studies used methods that conformed to Dillman, Smyth, and Christian’s (2009) The Tailored Design Method. However, the 2011 study used an electronic format to gather data instead of the traditional mail format used in the 1998 study. The Tailored Design Method employs a series of correspondence between the researcher and subjects including notification of selection in the study, several requests for participation including the survey, a thank you for responding, and the offer of receiving the results. The method also requires the researcher to track respondents in a manner that data are confidential rather than anonymous. Since the data gathered by the study were not considered sensitive or threatening the confidential nature of the collection process was not considered a threat.

The electronic survey sent to the sample of women secondary school principals contained Hersey and Blanchard’s 12 item LEAD Self instrument, the Hulpia et al.’s (2009) Distributed Leadership Inventory (DLI), and demographic questions. Demographic data collected from the participants, included age, ethnicity, number of years of experience in teaching, number of years of experience as a principal, and number of years of experience in their current position.
In addition to survey data, school level data were gathered from the Texas Education Agency (TEA). In particular, information regarding campus size, campus accountability rating, ethnicity, student achievement, and the socio-economic status of students was collected. The data were merged with the 1998 survey data. The data collected in 2011 were compared with data collected on women secondary school principals in 1998.

The collected data were analyzed using descriptive statistics for the demographic questions concerned with their personal and professional characteristics including: ethnicity, age, education level, years of experience in teaching, years of experience in administration, and years in their current position. Leadership styles and distributive leadership practices were also examined using descriptive statistics for item and scale scores on both instruments. The school level data gathered from the Texas Education Agency were also examined using descriptive statistics including those variables of: campus rating, size of school, students per teacher, percentage of students qualified for free and reduced priced meals, accountability passing rate for all tests and all students, per pupil expenditures, and location. The descriptive analysis addressed the first two research purpose and its attendant questions.

Various inferential analyses were performed to compare differences between women secondary principals in 2011 and women secondary principals in 1998. The different hypotheses tested depended on the scale of the independent variable and the degree to which the various assumptions were met. Effect sizes were calculated for all statistically significant findings. These analyses addressed the second research purpose and its attendant questions.

**Chapter Summary**

This chapter provided background information for the study, the problem and purposes that justify the research. The intent of this dissertation is to advance understanding about women who have succeeded in becoming secondary school principals. Specifically, the study sheds light
on the nature of their experience and talent as leaders. The study also explores evidence concerned with progress in their employment in Texas schools. While many researchers have examined the leadership behaviors of women administrators (Curley, 2007; Eagly & Carli, 2007; Chrisman & McClellan, 2008; Gates & Siskin, 2001; Hyde, 2005; Kruger, 2008; Roser et al., 2009) there is little or no research to be found that analyzes changes in the leadership of women over time. It seems that understanding how the leadership behaviors of women may have evolved, or not, over time is information that could provide further understanding of the progress women have made in accessing and maintaining leadership positions.

The information has practical significance because it has the potential to be used in the development of principal training programs and to inform recruiting and hiring practices as school districts look for principals who are capable of providing strong and effective secondary school leadership. Further, the understanding of the situational and distributed leadership practices of women secondary school principals has practical significance: (a) because women principals often lead high poverty schools in urban settings (National Center for Educational Statistics, 2003) where strong instructional leaders are particularly needed to help narrow the achievement gap, (b) in terms of increasing the pool of principal candidates in order to avoid a principal shortage, and (d) in terms of strengthening the number of effective instructional leaders at the secondary level.

At a substantive level, the study provides information that may result in expanding the pool of high quality leaders at the secondary level and add to the literature regarding successful leadership practices. It is important to build leadership capacity that expands secondary leadership beyond the traditional white male principal. However, it is important to emphasize that neither gender nor ethnicity should be the determining factor in principal selection. The
leadership skills and qualifications of the candidate should be the primary consideration for hiring.

The dissertation continues to chapter two and a review of literature. In order to fully understand the variety of issues related to gender and secondary school principal positions, the review of the literature in chapter two includes the history of women in administration, perceived barriers experienced by women as they seek leadership positions, differences in leadership styles based on gender, and a review of how leadership theory has evolved over time with an emphasis on the progression toward distributive leadership theory and practices. Chapter three describes the methodology used for the study. Chapter four provides the findings. Finally, chapter five describes the conclusions, implications, and recommendations for further study.
CHAPTER TWO
REVIEW OF THE LITERATURE

Despite much effort in reducing the underrepresentation of women in managerial positions in business and government generally and in educational organizations specifically, research demonstrates that the gap remains large and robust. In school districts, in the United States as well as in many other countries, the inequity is most pronounced for the superintendency, but is also pronounced for principals at the high school level (Kaparou & Bush, 2007; Kruger, 2008; Macha & Bauer, 2009; Moreau, Osgood, & Halsall, 2007; Reynolds, White, Brayman, & Moore, 2008). Women high school principals are a small and unique group of administrators who may bring different perspectives regarding ways in which schools can be more effective. In order to fully appreciate what is known about the leadership of women principals, the literature presented in this chapter involves a more complete review than that provided for study’s background. The literature reviewed in this chapter begins with a brief discussion of the development of leadership theory in order to give the focus on situational leadership since it is one of the key models used for identifying and explaining leadership styles. The distribution of leadership practices or distributive leadership theory also will be explored, given that it has received much interest in the educational literature written for school leaders (Day, Gronn, & Salas, 2004; Fullan, 2010; Marzano et al., 2005; Spillane, 2006). According to Mayrowetz (2008), “The Council of Chief State School Officers and the Education Commission of the States have endorsed the idea of distributed leadership by incorporating it into several Wallace Foundation-funded State Action Educational Leadership Projects” (p. 425). The need for distributive leadership practices is especially prevalent at the secondary school level, where the large size of the schools requires that leadership responsibilities and decisions be shared in
order for the systems to function effectively. The final section of the chapter, the summary, is concerned with reviewing literature on gender and educational leadership. Particular attention is given to explaining what is known about women principals and a delineation of their strengths as offered in the literature (Blount, 1998; Grogan, 1999; Kruger, 2008; Robinson & Lipman-Bluman, 2003; Roser et al., 2009).

The materials reviewed include a variety of primary sources, books, meta-analysis, and literature reviews. Included are authors who are well-known for their work in regard to gender as it relates to leadership, as well as authors who have contributed to the development of leadership theory and research-based best practices for improved student learning.

**Leadership Theory**

A total review of leadership literature is beyond the scope of this chapter. It is sufficient, however, to offer a brief overview of the concept as various models and theories have surfaced over the years, only to pass into disfavor as scholars adopt the next generation of ideas about this phenomenon. The bulk of the section is dedicated to reviewing situational and distributive leadership.

**Situational Leadership**

Leadership theories have changed and evolved over time. In this process, theorists have often selected and expanded on parts of previous theories as well as added new concepts to formulate, advance, and test hypotheses. Much of current leadership theory finds its roots in trait theory. Adherents of trait theory contended that leaders are endowed with superior qualities. The superior qualities included charisma, as well as mental and emotional intensity such that the leader was seen as able to inspire and convince followers to help with the leader’s cause (Daft, 1999). Rost (1993) stated that “trait theories looked like great men caricatures in egalitarian dress” (p. 27) which ultimately fell into disuse given later models that more appropriately or
authentically met the needs of a democratically oriented mentality. As part of the debunking of trait theory, contingency theory was hypothesized to describe leadership along with its step child known as situational leadership.

Contingency theory explained leader characteristics were not innate, which was the position held by trait theory, but suggested that they emerged or were developed over time as a result of place and circumstance (Yukl, 2010). Situational leadership, associated with the work of Hersey and Blanchard (1982), embraced this notion and asserted that leaders adapt their behavior based on the skills and willingness of the followers to perform tasks. In other words, they posited a four quadrant model in which the nature of the task formed one dimension and the nature of the follower formed the second. For example, a situation can involve a complex or difficult task with a poorly motivated or unprepared follower. Such situation would require much of the leader’s attention as opposed to situations where the task was easy or the followers were highly motivated. The leader behaviors associated with situational leadership theory are telling, selling, participating, and delegating.

Telling is considered to be a behavior the leader should use if the employee is not competent or confident to complete the task without being directed and supervised. Telling is focused on the task that needs to be completed more than the relationship between the leader and employee. Selling is the behavior recommended if the employee is willing to complete the task, but lacks the skills to do so. This leadership style is considered to be directive, but supportive. The premise of the selling style is that the employees will usually go along with a decision made by their leader if they understand the reason for the decision and if there is help and support offered by the leader. Selling is considered to be a high task and high relationship style. Participating is the style recommended if the employee has the skills to complete the task, but appears to be unwilling to do it. This is considered a motivational problem; therefore the leader
needs to use a facilitative, supportive, nondirective style that includes shared decision making. Participating is a high relationship, low task style. The final leadership style posited by the theory is delegating. The delegating style is recommended when the employee is willing, able, and confident enough to take on responsibility with little or no guidance from the leader. Delegating is a low relationship and low task style of leadership.

Hersey and Blanchard (1982) suggested that individuals as leaders do tend toward or can rely more heavily on one style than on others. The model refers to this as the leader’s major leadership style (MLS). The model also describes how people exhibit multiple styles of leadership in order to be effective given the contextual aspects involving the task and followers. Hersey and Blanchard (1988) stated that the ability of leaders to vary their leadership style, depending on the demands of the situation, is more predictive of their effectiveness as leaders than their major leadership style. They refer to this flexibility in leadership behavior as adaptive leadership style (ALS). Leadership adaptability is the degree to which a leader possesses situational awareness in conjunction with their ability to change their behavior based on the situation.

Hersey and Blanchard (1982) developed a number of instruments to measure the four leadership styles and leadership adaptability posited in their theory. Leadership Effectiveness and Adaptability Description (LEAD) is the primary tool which has several versions such that followers, superiors, and the leaders themselves—a 360 degree perspective—can answer questions to identify how an individual leads. The LEAD Self instrument is the tool leaders take to assess their own leadership style and adaptability. The LEAD Self instrument will be discussed with more depth in chapter three.

Even though the situational leadership model has held wide appeal for many years, it is not without its critics. Yukl (1981) described situational leadership theory as being intuitively
appealing, but along with Blank, Weitzel, and Green (1990), concluded that the singular focus of situational leadership on subordinate maturity may oversimplify the complexity inherent to conditions. Thompson and Vecchio (2009) stated that even though situational leadership models have been modified over the years, there is still a lack of empirical evidence to support them. Further, they noted that as the model has been revised it has become less clear, providing the example that in the Situational Leadership-II instrument a number of cases fell outside of the model’s definable constructs. Graef (1997) posited that “consistency problems continue to plague all versions of Situational Leadership” (p. 161). Vroom and Jago (2007) stated that “viewing leadership in purely dispositional or purely situational terms is to miss a major portion of the phenomenon” (p. 23). They described leadership as a process of working collaboratively to achieve great things. Their view of leadership as a collaborative process aligns more closely with current thinking in regard to distributive leadership (Spillane, 2006; Louis et al., 2010).

Although many unresolved issues about situational leadership theory remain, various concepts and arguments that it champions are visible or have been incorporated into more recent theories that have received much attention. Bass and Avolio (1994) thought of leadership relationships as transactional, or giving something to get something. They mentioned three forms of management style: (a) management by exception, passive, which involves setting standards, but waiting for something to happen and then reacting to it. This style protects the status quo; (b) management by exception, active, which involves setting standards, paying close attention to issues that arise by closely monitoring follower behavior. This creates an environment in which followers are afraid to take risks; therefore innovation and reforms are not likely; and (c) the constructive transactional, which sets goals, clarifies the desired outcomes, and exchanges rewards and recognition for accomplishments, as well as consults with followers. Constructive transactional is the most participatory of the transactional styles and is closely associated with
Burns’ (1978) transformational leadership theory. According to Burns, transformational leadership is participatory in nature, based on relationships of “mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents” (p. 4). Transformational leadership focuses on change. Bass (1985) and Bass and Avolio (1994) characterized transformational leadership as involving four factors: (a) individual consideration, described as giving personal attention to employees who seem neglected; (b) intellectual stimulation, described as enabling employees to think of new ways of doing things; (c) inspirational motivation, described as communicating high expectations through projection of confidence. The philosophy supporting this notion is that powerful, dynamic charismatic behaviors invigorate followers; and finally, (d) idealized influence, described as modeling behavior through exemplary personal achievement, which is sometimes referred to as the great man theory of leadership (Daft, 1999).

Leithwood (1994) incorporated Bass and Avolio’s four characteristics into his transformational model of school leadership. He expanded the transformational theory and applied it specifically to instruction in order to move the efforts of the followers from acting solely to support the organization to building capacity within the workforce as well. Marzano, Waters, and McNulty (2005) described instructional leadership as having four dimensions: resource provider, instructional resource, communicator, and visible presence. Marzano et al. described situational awareness as one of 21 leadership responsibilities. Marzano et al. emphasized that the 21 responsibilities must be shared with or distributed to a collaborative leadership team of teachers, which they identified through a meta-analysis of the literature about principal effectiveness and student achievement. Marzano et al. argue that the priorities should change based on the situation and that the responsibilities must be distributed throughout the school leadership team.
Other researchers (Blasé & Blasé, 1999; Glickman, Gordon, & Ross-Gordon, 1995) identified the development of collaborative relationships as part of instructional leadership. Spillane (2006) described leadership as an interactive web of leaders and flowers who periodically change roles as the situation warrants. Employees are not just followers; instead, they are empowered to participate in leadership decisions and functions. Spillane described this as using a distributed leadership frame. Using a distributed leadership frame allows for multiple leaders with different but interrelated responsibilities. Spillane explained that the distributed theory of leadership is based on interdependent relationships among leaders, followers, and their situation. Distributed leadership is often compared to collective or shared leadership, in which formal and informal leaders are more important than the leadership of a single person (Day et al., 2004).

**Distributive Leadership**

As theories have grown from and built on one another, they have kept some elements, discarded others, and added new ones as the current knowledge and/or situation dictates. The earlier theories such as trait theory, situational leadership theory, and to some degree transactional theory, looked most specifically at the behavior of the leader (as if the leader could move the organization forward all by him or herself) have evolved into theories with a more participatory focus. The notion that progress rested solely on the shoulders of one person evolved into what Rost (1993) referred to as a post industrial definition of leadership. Relationships within organizations became more important as people worked together with a sense of shared purpose to move the organization forward. The values of collaboration, pluralism, global concern, and diversity became important. Those elements, along with critical dialogue and social justice, are cornerstones of the constructivist (Lambert et al., 2002) and transformative (Shields, 2003) theories. Leadership theories have evolved from an appreciation of the solo charismatic
leader/decision maker to an appreciation of leadership values of trust and credibility (Kouzes & Posner, 1995). Further, analytic leaders who value collaboration are persistent questioners, speak uncomfortable truths about inequities, and are deeply reflective in order to create positive change (Reeves, 2006) are more highly valued today. Much of current theory about school leadership is connected to a distributive leadership model.

Distributive leadership theory takes situational variables into consideration, but looks at leadership through a broader lens. It is often linked with collective, shared, participatory, and collaborative leadership (Leithwood & Mascall, 2008). Distributive leadership is the ability of the principal to arrive at decisions through a collaborative process, and his or her ability to share leadership responsibilities with teachers and other staff. Like situational awareness, distribution of leadership requires the leader to be aware of various situations involving employee skills and of employees’ readiness for responsibility in order to lead effectively. However, distributive leadership differs from situational leadership in that it focuses on the need to create a culture of interaction between leader, followers, and situation (Spillane, 2006), as opposed to situational leadership, which focuses upon how the leader influences his or her employees based on awareness of the employees’ skills and willingness to perform certain tasks (referred to as “the situation”).

Gronn (2002) views distribution of leadership from two broad perspectives: the additive and the holistic. The additive perspective notes that more than one person contributes to organizational success. The holistic perspective deems distributive leadership an all-inclusive phenomenon that includes delegation, collaboration, sharing of work, and decisions. Distribution of leadership for improved learning is an organized system of people who share interests, knowledge, and skills, who at times exchange roles to work toward a common task or goal; it is a dispersed practice that has many contributors (Elmore, 2000; Leverett, 2002). The
work of Bennett, Harvey, Wise, and Woods (2003) affirms that distribution of leadership is not something done by an individual to others, but a group activity that works through and within relationships, which is similar to how Spillane (2001, 2006) described distributive leadership as an activity that is constructed in the interactions of leaders, followers, and their situation as they work toward a specific outcome. MacBeath (2005) described distribution of leadership as a developmental process that involves: (a) cultural, practicing leadership as a reflection of the school’s culture and traditions; (b) being opportunistic, as capable teachers willingly extend their roles; incremental, responsibility is shared as people demonstrate their capacity to lead; (c) being strategic, it is planned; (d) being pragmatic, necessary in large schools to share the workload; (e) formality; there are prescribed roles. The responsibility for leadership is gradually released and changes over time depending upon need. Woods, Bennett, Harvey, and Wise (2004) described three distinctive elements of distributed leadership: an emergent property of a group or network, an openness of boundaries, and diversity of expertise and opinions.

Distributive leadership theory is thought to be a good framework for increasing organizational effectiveness (Leithwood, Mascall, & Strauss, 2009; Spillane, 2006; Spillane & Diamond, 2007). Both situational awareness and distribution of leadership are important to apply in school organizations in order to meet current expectations for sustained educational reform (Gronn, 2008). Elmore (2000) also advocates for using distributed models of leadership in order to effectively provide guidance on curriculum, instruction, assessment, and all the other complex functions of a school. Copeland and Knapp (2006) describe this participatory process as leading for learning.

According to the meta-analysis conducted by Marzano et al. (2005) and Marzano and Waters (2009), there is a positive relationship between the administrative actions of school and district leaders and student achievement. In fact, Marzano et al. stated that “school leadership has
a substantial effect on student achievement” (p. 12). Further, Marzano and Waters advocated that educational leaders use theories and results of studies to develop general principles of behavior to guide them in specific situations. The values of collaboration, celebration of diversity, respect for individuals, and reciprocal relationships that share knowledge and support one another are keys to providing the best learning environments for students. In order to create optimal learning communities for students, relationships of mutual respect, reflection, and shared leadership are essential. Fullan (2001) noted that charismatic leaders may do more harm than good in that they create a dependency instead of shared leadership and that they support only episodic change, not sustained school reform. Fullan’s view of the leadership that is needed for long-term school reform is shared or distributed leadership, in which the burden of the huge task is not solely on the shoulders of one person. He advocated for leadership that builds systems that will sustain the change after that key person leaves. Fullan described five components of effective leadership that draw from previous theories: (a) moral purpose defined as acting with the intention of making a positive difference; (b) understanding of the change process recognizing that it is complex and hard to define; (c) relationships that are the common factor to every successful change initiative; (d) purposeful interaction and problem solving focused on knowledge creation and sharing knowledge; and (f) coherence making or allowing for some ambiguity, but seeking coherence.

According to Fullan (2010), “The best leaders make people feel good about working on and making progress relative to a tough problem or set of circumstances” (p. 47). Many researchers (Fullan, 2005; Lambert, 2002; Elmore, 2000; Leverett, 2002; Louis, Leithwood, Wahlstrom, & Anderson, 2010) asserted that schools need many leaders, not just one top leader. Collective efforts and collaboration across roles are needed to produce school reform. According to Louis et al. (2010), when principals share leadership responsibilities and decisions with teachers and parents, working relationships are stronger and student achievement is higher. They also asserted that
distributive leadership is particularly important in larger more complex settings such as secondary schools. Increasing teacher influence may improve school significantly (Leithwood et al., 2007; Mayrowetz, 2008; Spillane, Halvorson, & Diamond, 2004). As Spillane (2006) noted, “There is hope that distributed leadership research will reveal the causal relationship between how leadership is distributed and what pupils can achieve” (p. 95).

According to Louis et al. (2010), when principals and teachers share leadership, teachers’ working relationships are stronger and student achievement is higher. Leadership effects on student achievement are present largely because effective leadership strengthens professional community. Increasing teacher influence may improve schools significantly (Leithwood et al., 2007; Spillane et al., 2004). These views differ from the original thinking behind site-based management, which advocated more community control of schools instead of interdependent and shared leadership among the principal, teachers, and parents. Strong leadership is needed to help establish collaborative partnerships and foster shared decision making, which in turn will enhance ownership and responsibility.

**Gender and Educational Leadership**

Blount (1998, 2000) and Tallerico and Blount (2004) provided a wealth of historical information regarding the evolution of teaching and administration from a gendered perspective. Blount’s (2000) review of the literature traces the evolution of teaching and administrative roles in education through a gender-specific lens, describing the various socially constructed norms placed upon educators during certain periods. Blount’s review begins with literature regarding education in the 1800s, when teachers were exclusively male. She described a shift to a predominance of women teachers around 1850. Teaching remained a largely female profession until the 1950s. Education was so feminized that males who were not in administrative positions left the profession in large numbers so that they would not be perceived as feminine. Blount
reported that school administration has been significantly defined by gender. In the early 1900s, appeals were sent to men to join the field of education in order to keep male students from becoming too feminized. In order to re-attract men to the field, they were promised quick promotions to administrative positions.

The title of Blount’s (1998) book, *Destined to Rule the Schools: Women and the Superintendency* was borrowed from a quote by Ella Flag, who became Chicago’s superintendent in 1909. According to Blount, Ella believed that women were the natural leaders for schools and that the number of women administrators would continue to increase. Blount stated that women superintendents in the early twentieth century tended to be activists who were supported by other women. The rise in the number of women superintendents coincided with the suffrage movement. The activists believed that women could remove the corruption in school administration and improve education through improved teaching. This new-found power was short-lived, as other groups actively campaigned for policies that limited the access of women to the traditionally male-dominated positions. One such policy was the GI Bill, which paid for schooling of veterans, thereby helping to open doors for men in education, which reduced the number of college enrollment spaces available for women.

The modern women’s movement of the 1970s enhanced opportunities in educational administration for women, but the gains have been slow, and the percentages of women administrators are still significantly less than the percentage of women teachers at all levels of education, but most noticeably at the secondary level (National Center for Education Statistics, 2009). Tallerico and Blount (2004) cited multiple authors who identified factors that contribute to the underrepresentation of women in educational administration. Some of those factors include ideologies about appropriate sex roles, stereotypes regarding how a leader should look and behave, the socialization of boys and girls toward gender-specific behaviors, emphasis on
authority and competition rather than collaboration, and administrative employment practices that present barriers for women. Additionally, the informal networking and mentoring men utilize provide them with a hiring advantage. Family constraints and discriminatory patterns in training, recruitment, promotion, and evaluation were also identified as factors that influence the underrepresentation of women in school leadership positions (Young, 2005; Weber et al., 1981). Sherman, Munoz, and Pankake (2008) substantiated Blount’s assertions that women tend not to have mentors and strong networks, which are perceived as crucial to obtaining high level leadership positions. They reported, “According to the U.S. Labor Department, women in the business world are more readily promoted to positions of executive leadership than are women in the field of education” (p. 243). The authors made several suggestions to help women overcome the barriers: (a) women need to create their own networks, (b) districts need to develop formalized systems to identify teachers with leadership potential, (c) current leaders need to take action to mentor new leaders, and (d) women who aspire to leadership positions need to be proactive.

Eagly and Carli (2007), authors of Through the Labyrinth, have extensive research experience in the study of gender, prejudice, women's leadership, and cultural stereotypes. The authors described the metaphor of the glass ceiling as an overly simplistic description of the barriers encountered by women when seeking administrative positions. They suggested that a labyrinth is a much more accurate metaphor for the process of obtaining high leadership positions, since it involves complex twists, turns, and barriers, but offers that there is a possibility of obtaining those positions through knowledge, skill, and perseverance.

Weber, Feldman, and Poling (1981) cited work by Osofsky (1971) reporting that men and women are conditioned from childhood to believe that men are better leaders than women. Leadership has often been defined by traits typically identified with males, such as dominance,
achievement, autonomy, and aggression. Female roles have been defined by traits such as emotionalism, passivity, timidity, deference, and self-abasement. Weber et al. (1991) suggested that at times in our history when women have taken on leadership roles, they have been considered deviant because leadership roles were outside the accepted sex-role stereotypes. Blount (2000) stated that women have had to choose between acceptable and unacceptable professional roles when they move from teaching to administration. Teaching is considered acceptable because it is considered to be supportive and compatible with family life and motherhood. Administration is not considered supportive; it draws a higher salary than teaching, requires more responsibility, and has been perceived to require personality traits such as dominance that are considered unbecoming to women. Hiring practices for administrators may be discriminatory because the people who are doing the hiring are men. There have been few female role models in leadership positions, and traditionally, those women who were in leadership positions did not encourage other women to seek administrative roles (Tallerico & Blount, 2004; Weber et al., 1981; Sherman et al., 2008). The authors also noted discriminatory practices regarding how people are promoted in education. Men are promoted at much younger ages with fewer years of experience than women.

Brock’s (2008) study went beyond Young’s (2005) notion that women discriminate against other women to include what she called professional sabotage among women in professional leadership. According to Brock, “a successful sabotage can derail a woman’s career” (p. 23). Brock suggested that awareness needs to be increased among women regarding professional sabotage and the measures that can be taken to reduce its occurrence. She explored women’s relationships, equality in relationships, women’s socialization, and women’s triggers for sabotage. She expressed the opinion that this is a substantial problem that should be discussed in principal training programs.
Reports about the nature and extent of similarities and differences between the leadership styles of men and women are conflicting. Kruger (2008) used Hyde’s (2005) work that developed the gender similarity hypothesis, stating that “men and women are basically alike in terms of personality, cognitive ability and leadership” (p. 159). Further, Kruger concluded that perceived gender differences that affect leadership are actually created through a combination of biological and environmental or social factors. Kruger stated that “gender appears to be an important factor in leading” (p. 162). Women tend to be stronger in relationship-oriented behavior and supportive styles, while men are stronger in instructive and controlling styles. According to Kruger, women are often stronger instructional leaders than men because they spend more time on educational matters than men. That is an important point if a goal of having strong principal leaders is to improve student achievement. Kruger reported that more of women principals’ time is spent on classroom instruction, professional development, and creating a positive culture. Male leaders tend to spend more time on administrative tasks and external contacts. Kruger asserted that we should be capitalizing on biological and gender differences instead of pretending they do not exist. Identifying gender differences, acknowledging them, and working to change the attitudes of society so that those characteristics associated with women are valued is a key to improving the status of women and perhaps to improving the effectiveness of schools. Gates and Siskin (2001) reported that a useful theory of leadership was not developed by looking at physical, social, gender, and personality traits of leaders; they added that the one trait that continued to receive attention was gender. They argued that women as leaders need to be looked at separately if their skill in leadership is to be more fully understood.

Christman and McClellan (2008) concluded that gendered norms alone were too simplistic for successful women administrators. Women in leadership positions must be very astute in using situational awareness and must employ skills that are considered both masculine
and feminine in order to deal with those situations effectively. Robinson and Lipman-Blumen (2003) reported similar findings: Leaders need a far more sophisticated repertoire of “savvy behaviors” (p. 29) than the stereotypic norms of power and control attributed to men, or of collaboration attributed to women. Further, the results of Robinson and Lipman-Blumen’s study of the differences between male and female managers’ achieving styles found that there was a significant difference between the genders in only three areas. Men scored significantly higher than women on competitiveness. Women scored higher than men in the area of intrinsic style, which is defined as the ability to execute a task individually at a high performance rate. The third significant difference was that men scored slightly higher in the areas of vicarious style, which is defined as deriving a sense of accomplishment through the achievement of others. The two findings are contrary to the socially constructed norms that women are more people-oriented and less task-oriented than men.

Roser et al. (2009) examined the gender demographics of principals in the state of Texas in relation to campus size, grade level (elementary, junior high, and high school), and academic achievement rates of the schools. A correlation between campus rating and gender was found. Women leaders were more prevalent at exemplary, recognized, and acceptable schools than male leaders; the most prevalent campus rating for male principals was that of unacceptable. The researchers cautioned readers who are involved in the hiring of school leaders to look at qualifications, experience, and performance when hiring, not gender; however, they emphasize that the findings of the study should be considered in order to insure that non-discriminatory practices are used during hiring.

A content analysis of evaluations written by female and male supervisors for female and male teachers conducted by Shakeshaft, Nowell, and Perry (1991) revealed several differences in evaluation practices between men and women. Some of the differences were that the women
principals focused more on instruction, provided more facts, looked more closely at the impact of the teacher on the students, and gave direct feedback for improvement. All of the aforementioned strategies are important for improved student achievement (Marzano et al., 2005). Male principals tended to look more closely at organizational structure and avoided conflicts. The principals had all received the same training for conducting evaluations.

According to Shakeshaft et al. (1991), women are often evaluated less favorably than men and are given less feedback than men. The lack of feedback makes it difficult for women to have an accurate picture of their performance and makes it difficult for them to correct errors in performance because they are unaware of them. Female students are also given less feedback than male students. The lack of honest feedback given to girls and women can create oversensitivity to criticism when it is offered.

Shakeshaft (1987) indicated that relationships were more important to women administrators than to men administrators. Additionally, Shakeshaft reported that teaching and learning is often a more central focus for women than for men, and that building community is often more important to a female administrator than to a male administrator. Shakeshaft et al. (1991) concluded that gender does make a difference in how administrators behave even when they have had the same training. Shakeshaft et al. made the point that these differences need to be acknowledged by administrators so that they can modify their own behavior and actions accordingly.

Grogan (1999) and Shakeshaft et al. (1991) agreed that there are research findings to support the idea that women often lead schools in ways that would be beneficial to education. However, Grogan suggested that we need to look beyond the numbers and focus on why there are so few women who hold administrative positions in education. Grogan concluded that “ultimately, we must seek leaders who are critically informed, women and men, White and of
color” (p. 533). The new leaders need to be critical thinkers who do not perpetuate more of the same in terms of obscured perceptions of race, class, and gender—which Shields (2003) referred to as “transformative cross-cultural leadership” (p. 9). Furman (2002) advocated for leadership practice that encompasses elements of moral leadership, critical-humanist leadership, constructivist leadership, and distributive leadership.

Finally, it is worth mentioning that researchers engaged in similar studies in other countries reach conclusions that are fairly comparable to those discussed above. Macha and Bauer (2009) described the evolution of women’s access to education in Europe, proudly noting that in the past 100 years women have become better educated than men, earn better grades in the school system, and tend to earn higher degrees. However, the educational success of women has not translated into the reduction of barriers into academic careers. Macha and Bauer’s article cites data from the glass ceiling index that indicate that for women, the higher the position, the thicker the glass. The study indicated that there are multiple reasons for the lack of participation by women in leadership careers and Ph.D. programs that echo those already noted. Moreau et al. (2007) reported that women are “underrepresented in promoted posts, across all education phases” (p. 238) in the United Kingdom. Their review of the literature reported similar underrepresentation of women in leadership positions in France and Israel. Kaparou and Bush (2007) noted that even though gender discrimination is prohibited under the Greek Constitution, the underrepresentation of women in management positions in Greece is evident at all levels. Drayton and Cole-George (1991) reported the existence of a similar phenomenon in the Caribbean. Reynolds, White, Brayman, and Moore (2008) found a significant underrepresentation of women secondary principals in four Canadian provinces. Kruger (2008) noted that women are underrepresented in school leadership positions “in practically all
countries” (p. 156). Young and Skrla (2003) stated that “gender inequalities are one of the few cultural universals” (p. 84).

**Chapter Summary**

The review of the literature explored the evolution of leadership theory and practice as well as the role and success of women as educational leaders. The current literature surrounding leadership theory has evolved from the notion that a single charismatic leader can reform a school organization, to the realization that leaders must share in the leadership responsibilities and decision making in order to create sustained change. Schools need leadership teams that function through reciprocal interdependence between formal and informal leaders. If leadership team members are to be effective, their roles need to shift as the situation warrants. All members must be skilled collaborators and knowledgeable regarding learning and teaching. The literature review supports the need for the use of more distributed leadership practices. The review of the literature also articulates the need for more study regarding distributive leadership practices at the secondary school level because the studies that have been conducted in regard to this relatively young theory have been conducted mostly at the elementary level.

The underrepresentation of women continues despite the fact that many of the leadership characteristics attributed to women, such as being relationship-oriented, being collaborative, and possessing strong instructional leadership skills, are the very characteristics prescribed by education theorists and experts as those that are needed in order to reform education.

The underrepresentation of women in the role of secondary school principal is clearly documented in the research. Women are underrepresented in educational leadership roles both nationally and internationally. The major reasons noted for the underrepresentation are: (a) sex role stereotypes; (b) discriminatory practices of hiring, training, recruiting, evaluation and promoting; (c) lack of mentoring; and (d) sabotage of women by other women.
The historical overview facilitates an appreciation for the progress, or lack of progress, women have made over time in achieving principal roles at the secondary level. The historical perspective articulates the influences of gender roles on education in order to bring understanding of how current practices and behaviors may have evolved. Lack of progress toward providing equitable opportunities for women and other marginalized groups is important for several reasons: (a) there is a reported shortage of potential principal candidates, which strong women leaders could help reduce; (b) superintendent positions are often hired from secondary school principal positions, which means if those positions are exclusive to white males, then predictably, so are superintendent positions; (c) pressures of educational reform call for leaders who can work collaboratively and share leadership responsibilities and decisions, especially at the high school level where the size and complexity of the school often makes it difficult for one person to lead effectively; and finally, (d) a large pool of qualified principal candidates is needed to take on the monumental task of school reform, especially in urban locations where the achievement gaps tend to be the greatest.
CHAPTER THREE
METHODS

Who are the women who are the administrators of secondary schools today and in what ways do they differ from women principals of the past? How do women principals lead and are their leadership styles and practices different than those of their predecessors? Further, are the schools they lead different from schools led by women in the past? These are the questions that lie at the center of this investigation. While there are many other questions relevant to women in educational leadership, answers to these promise to assist in unlocking particularly difficult problems related to the improvement of high school student performance and increased representation of women in the superintendency. The challenge of securing data to answer these questions is not a small matter. In reality, the lack of historical and representative data about women secondary principals necessary for analyzing differences is a significant barrier. However, a survey conducted in 1998 on the collaborative leadership of Texas principals was identified as having gathered information that could be used to address these issues. Chapter three below discusses the research methods used to address the following questions that guided the dissertation: (a) who are the women principals of Texas’ secondary schools? (b) what are their leadership styles? (c) how do women secondary school principals in Texas distribute leadership? (d) what are the organizational characteristics of secondary schools in Texas that are led by women principals? (e) what are the differences between women who were secondary school principals in Texas in 2011 as compared to 1998 in terms of their personal and professional characteristics? (f) what are the differences between women who were secondary school principals in Texas in 2011 as compared to 1998 in terms of their leadership styles? and
(g) what are differences between the Texas secondary schools administered by women in 2011 and the Texas secondary schools administered by women in 1998?

Chapter three is divided into five sections to present a non-experimental quantitative study that was conducted to answer the previously listed questions. According to Gay and Airasian (2003), quantitative descriptive studies provide information regarding the attitudes and behaviors of groups of people, making it an appropriate choice for this study. The survey design and other procedures used for the study, including sampling and subject selection, are discussed in the first section. The instruments and other sources from which data were gathered are presented in the second section. Ways in which the data were analyzed is described in the third section. The ethical procedures that were followed for the study are discussed in the fourth section. The fifth and final section of the chapter discusses the limitations and delimitations given the procedures set forth in the study’s research procedures that were employed in gathering and analyzing the data.

**Procedures**

According to Rea and Parker (2005), surveys are an appropriate means of gathering information that contribute to the understanding of human behavior. Additionally, Rea and Parker stated that well-structured surveys can generate standardized data that can be quantified. The study employed a longitudinal design, which is defined by Gay and Airasian (2003) as a study that collects data two or more times from different sample groups to measure changes over time. The procedures that were utilized to collect data from Texas women secondary principals in 1998 and in 2011 follow.

**1998 Texas Principal Survey**

Gates and Siskin (2001) used the Collaborative Leadership Survey to gather information from a representative and random sample of 500 Texas school administrators. The principals
surveyed in 1998 included administrators of regular, alternative, and comprehensive public schools. No private schools were included. The survey included Hersey and Blanchard’s 12-item Leadership Effectiveness and Adaptability (LEAD) Self instrument, a 10-item self-report measuring principal attitude toward teacher participation in decision making and professional activities, and a 10-item self-report measuring the perceived level of teacher participation in decision making and professional activities, as well as demographic questions about age, ethnicity, years of experience in education, and length of time in current position.

Dillman’s Total Design Method was followed for the study. Surveys were distributed via regular mail. In addition to the survey data, school level data were gathered about each of the campuses for the administrators surveyed, which included enrollment, regular program budget, per student budget, average teacher experience, students per teacher, socio economic status of the student population, and campus ratings.

A file was created from the larger set of data gathered in 1998 using the variables of gender and building level so that it contained only the scores of women for middle and high schools in 1998 (charter, alternative and regular). There were 69 women in the 1998 sample whose data were merged with those gathered in the 2011 Texas Women Principal Survey.

2011 Texas Women Principal Survey

During the intervening time between 2011 and 1998, electronic communications have developed exponentially, with survey methodology being increasingly employing through Web-based means to reach intended subjects. Electronic surveys have become an accepted method of gathering data and were used to gather data from principals in 2011. Specifically, the Skylight Matrix Survey System was the tool used for sending correspondence and administering the survey. Through that system, e-mail contact letters were sent to participants following The Tailored Design Method (Dillman et al., 2009).
The Tailored Design Method suggests a minimum of three e-mail contacts to each participant: an invitation to participate and two follow-up e-mails. The first e-mail contact, the letter of invitation to participate (Appendix A), includes a brief description of the purposes of the study, an explanation of what is expected of the participants, and the survey link. Each respondent was given the opportunity to indicate whether she wanted a synopsis of the findings at the end of the study. Additionally, a statement was included instructing the participants to send an e-mail to a specified address if they had questions or comments, or wished to be removed from participation in the study. Participants who wished to be removed, as well as participants whose e-mail messages were returned as undeliverable, were replaced using random replacement procedures. Newly selected principals were sent the initial letter. One week later, following the Tailored Design Method, a second e-mail contact (Appendix B) was sent containing a thank you message to those participants who completed the survey and a reminder to please complete the survey to those who had not yet responded. The second e-mail contact included the link to the survey, along with a short message urging participants to respond. The third e-mail contact (Appendix C) was sent one week after the second contact. That contact was an additional reminder to non-responders containing the survey link and a message strongly urging them to complete the survey. Because the response rate was low, a fourth reminder was sent to non-responders (Appendix D). Finally, a message was sent with information indicating it would be the final attempt to acquire their response (Appendix E).

The survey questions for the LEAD Self instrument are located in Appendix F. The questions for the DLI are listed in Appendix G. The demographic questions asked are shown in Appendix H. These will be discussed in a later section of chapter three.

The 2010 school data was downloaded from the Texas Education Agency website. The school level data included campus rating, school size, school location, per pupil expenditure, and
socio-economic status for the campuses of those administrators selected for the study. The data file was prepared for merging with the principal responses to the survey. Once the two files were merged, the data gathered in 1998 was merged with that collected in 2011.

**Sampling Design**

“The power of random sampling,” asserted Dillman et al., “is that estimates with acceptable levels of precision can usually be made for the population by randomly surveying only a small portion of people in the population” (2009, p. 17). The target population for this study was Texas public school principals. Women at the secondary school level were a subgroup of the target population. The sample drawn for this study was stratified and proportional according to the population in order to be representative, since “stratified sampling is the process of selecting a sample in such a way that identified subgroups in the population are represented in the sample in the same proportion that they exist in the population” (Gay & Airasion, 2003, p. 106). The process for creating the stratified proportional random sample is described in the following paragraphs.

The total number of schools in Texas exceeds 9000. The formula for determining the sample size necessary for representativeness (McNamara, 1994) was used to calculate a total sample of 614 principals. The margin of error was set at 1% and the confidence level at 99%. The following narrative provides the breakdown of the 9000 schools to explain how many of the 614 school principals were to be included in the study in order to achieve a generalizable sample. According to the Texas Education Agency’s (TEA) AskTed (database of school information) school counts retrieved on February 6 of 2011, there were 1,326 middle schools, 322 junior high schools, 1,749 high schools, 468 elementary/secondary schools, and 101 Department of Criminal Justice schools. Additionally, there were 313 secondary juvenile justice alternative schools, 282 secondary disciplinary alternative education programs, and 716 secondary alternative
instructional schools. A number of these schools did not report students enrolled and/or identify of a school administrator. Many administrators for these alternative and charter schools were also listed as the principal for a regular school campus. AskTed reports 4,597 active secondary and elementary/secondary total school units or slightly over 52% of the total number of schools. Elementary schools and schools with no principal listed, no students listed, or listed as under-construction were eliminated, reducing the number of remaining schools to 48% of the total.

In addition to the school level and type, AskTed also provides a school directory of the name, e-mail address, and physical address for each building principal. The names of principals were used to generate the variable of gender. Women were principals for approximately 37% of elementary/secondary schools, 46% of middle/intermediate schools, and 32% of high schools. The proportions for each stratum (level and type by gender) were then used to calculate the appropriate number of principals to be surveyed. Specifically, 28 elementary/secondary school principals (K-12 schools), 51 middle school principals, 38 high school principals were determined to form a representative sample for women in secondary schools in Texas. Those numbers were used to draw participants randomly from the AskTed file.

The AskTed file was imported into the Statistical Package for Social Sciences (SPSS); then the number of principals for each of the strata was drawn from the file randomly. Before this action was performed, the file was purged of elementary schools and schools with principals who were not women. Further, in order that each woman principal should be allowed the same chance of being selected, women who were listed as principals of more than one school were included only once. Duplicate cases were eliminated. A final sample of 117 women were identified as principals of secondary schools in Texas.
Instruments, Questions, and Variables

Each of the instruments and questions used to gather information for this study is described in this section. The first instrument to be discussed is the Leadership Effectiveness Adaptability Description- Self (LEAD Self), because it was used for the 1998 survey and for the 2011 survey. The second instrument described is the Distributed Leadership Inventory (DLI). Small changes were made to the DLI inventory from its published form. The changes will be discussed with the description of the DLI. Third, the demographic questions used on both the 1998 and the 2011 surveys are presented. Finally, Public Education Information Management System (PEIMS) data gathered from TEA are discussed. Specifically, the definitions, operationalization, and issues of score reliability and validity for the school level data are described.

LEAD Self Instrument

The public domain version of Hersey and Blanchard’s LEAD Self instrument was used for the study. The LEAD Self instrument asks participants to respond to 12 leadership situations by choosing one of four possible actions based on how they believe they would react in that situation. The possible actions to choose from include those that are: (a) high task/low relationship, (b) high task/high relationship, (c) high relationship/low task, and (d) low relationship/low task. The raw scores on the 12 items are aggregated to generate a self-assessed outcome for: (a) leadership style, (b) style range, and (c) style adaptability. According to Greene (1980), the LEAD Self instrument has been validated and found to have satisfactory reliability. Details regarding the validity and reliability of the LEAD Self are presented later in the section. The results from the LEAD Self instrument that will be utilized for the purpose of this study are the major leadership style scores, the secondary style scores and the adaptive leadership style scores.
According to the Center for Leadership Studies, as reported by Hersey and Blanchard (1982), most leaders have primary and supporting leadership styles. The four basic leadership styles in situational leadership are: (a) telling, (b) selling, (c) participating, and (d) delegating. The primary style (also referred to as major leadership style) is that which the leader uses most often when attempting to influence the behavior of other people. The supporting style (also referred to as secondary leadership style) is the one that is the next most often used. A leader’s style range reflects his or her ability to use different styles of leadership. Style adaptability refers to the ability of the leader to use different styles appropriately depending upon what is warranted by the situation. According to Hersey and Blanchard (1988), style adaptability relates to leader effectiveness. The adaptive leadership score range is from -24 to + 24, least effective to most effective respectively.

The LEAD Self instrument was standardized on the responses of a sample of 264 managers throughout North America. It was originally designed as a training tool, which explains the brevity of the instrument. The LEAD Self instrument can be completed in approximately 10 minutes. The reliability and validity were documented by Greene (1980). Hersey and Keilty (1980) reported that the concurrent validity coefficients of the 12 items ranged from .11 to .52, and a significant correlation of .67 was found between the adaptability scores of managers and the independent ratings of their supervisors.

**Distributed Leadership Inventory**

The Distributed Leadership Inventory (DLI) was developed to investigate leadership team characteristics and distribution of leadership functions between formally designed leadership positions in large secondary schools (Hulpia, Devos, & Roseel, 2009). To measure distribution of leadership functions, participants were asked to rate individual leadership functions using a 5-point Likert-type scale: 0 = never to 4 = always. The scales in the
questionnaire were based on: (a) strength of vision, (b) supportive leadership behavior, (c) providing instructional support, (d) providing intellectual stimulation, and (e) supervision and monitoring. To measure the characteristics of school leadership teams’ role ambiguity, group cohesion, and the degree of goal consensus, a Likert-type scale ranging from strongly disagree to strongly agree was used. The reported reliability and validity for earlier administrations for each of the four components of the DLI—distribution of support, leadership supervision, leadership team collaboration, and participative decision making—are reported below.

The leadership support subscale of the DLI includes measures for concepts such as availability of a vision, feedback and support of teachers, and availability of the principal to assist and encourage teachers. The subscale was based on the strength of vision (DeMaeyer, Rymenans, VanPetegem, Van den Bergh, & Rijlaarsdam, 2007), supportive behavior (Hoy & Tarter, 1997), and providing instructional support and intellectual stimulation (Leithwood & Jantzi, 1999). The validity and reliability of the scores for principals were reported to be strong at $X^2 (64, N = 1902) = 353.840, p < .001$, Comparative Fit Index (CFI) = 0.960, Tucker-Lewis Index (TLI) = 0.952, Standard Root Mean Residual (SRMR) = 0.042, Root Mean Square Error of Approximation (RMSEA) = 0.069. Cronbach’s’s $a = .93$.

The leadership supervision subscale of the DLI measures the extent to which the principal is involved in the evaluation of the performance of the staff, including formative and summative evaluations of teachers. The subscale is based on portions of several instruments that included DeMaeyer et al.’s (2007) strength of vision, Hoy and Tarter’s (2007) supportive behavior, Leithwood and Jantzi’s (1999) providing instructional support, and providing intellectual stimulation. The validity and reliability for principals are reported to be strong at $X^2 (64, N = 1902) = 353.840, p < .001$, CFI = 0.960, TLI = 0.952, SRMR = 0.042, RMSEA = 0.069, and Cronbach’s $a = .83$. 
The subscale for cooperation of the leadership team measures various factors regarding the functioning of the school leadership team, such as support for goals, cooperation of the team, appropriate role functioning, and time allocation and execution of ideas. It was created by Hulpia et al. (2010), based on Litwen and Stringer’s (1968) Group cohesion scale; Risso, House, and Litzman’s (1970) role ambiguity scale; and Staessen’s (1990) goal orientedness scale. Hulpia et al. reported strong validity and reliability of the subscale scores at $X^2(35, N = 1902) = 1389.098$, $p < .001$, CFI + 0.978, TLI = 0.972, SRMR = 0.026, RMSEA = 0.056, and Cronbach’s $a = .93$.

The participative decision-making section of the DLI was based on the validated subscale of Leithwood and Jantzi’s (1999) developing structures to foster participation in school decisions. The validity and reliability of Hulpia et al.’s (2010) modified model was reported to be $X^2(9, N = 1902) = 57.403$, $p < .001$, CFI + 0.970, TLI = 0.950, SRMR = 0.032, RMSEA = 0.075, and Cronbach’s $a = .81$.

The DLI was created and tested in Belgium; therefore, minor changes in wording were necessary to enhance the understanding by American participants for a number of the questions or phrases. The changes involved items on two of the four factors. The modified question or phrase is provided first followed by the original language in parentheses. Six of the 11 items were altered for the cooperative leadership team factor: (a) There is a well-functioning leadership team at our school [The leadership team tries to act as well as possible]; (b) The leadership team acts in the best interests of students and staff [The leadership team supports the goals we like to attain with our school]; (c) All members of the leadership team work together in order to achieve the school’s core objectives [All members of the leadership team work in the same strain on the school’s core objectives]; (d) In our school, the leadership team is composed of people who are highly competent [In our school the right man sits on the right place, taking the competencies
into account]; (e) Members of administrative team divide their time appropriately [Members of the management team divide their time properly]; and (f) Members of the leadership team have clearly defined roles [It is clear where members of the leadership team are authorized to].

Support identifies the other factor on the DLI for which items were modified. The 6 questions that were changed included: (a) How frequently do you share your vision of the school? [How often do you premise a long term vision?]; (b) How often do you re-evaluate the school vision? [How often do debate the school vision?]; (c) Do you explain your rationale for feedback to teachers? [How often do explain reason for criticism to teachers?]; (d) Are you available after school to assist teachers? [How often are you available after school to help teachers when assistance is needed?] (e) To what extent do you encourage teachers to try new practices consistent with their own interests? [How often do encourage teachers to try new practices consistent with their interests?]; and (f) How often do you provide collaborative time for teachers? [How often do provide organizational support for teacher interaction?].

Permission for use of the Distributed Leadership Instrument was granted by Dr. Hester Hulpia, via electronic communication on January 17, 2011. Dr. Hulpia is a post-doctoral researcher at the Department of Educational Studies at Ghent University in Belgium.

Given the changes in the DLI, the modified version of the DLI along with the 12-item LEAD Self instrument and the demographic questions were field tested with a small number (8-10) of women secondary administrators from the Spokane, Washington area. The field test allowed for identification of potential problems and needed changes prior to sending the survey to the identified stratified proportional random sample.

**Demographic Data**

On both the 2011 and the 1989 survey of principals, the demographic information of respondents were posted at the end of the survey. Specifically, principals were requested to
respond to items that gathered information regarding their age, ethnicity, years of teaching experience, years of experience in school administration, and years of experience in current principal position.

**School Data**

School level data were downloaded from the Texas Education Agency (TEA) website’s Public Education Information Management System (PEIMS). Specifically, the most recent data from the 2009-2010 academic year were accessed. PEIMS data collection procedures insure the consistent and accurate tracking and housing of information regarding schools in the state of Texas. The data include but are not limited to school level information about students, such as percentage of poverty, academic achievement, graduation rates, dropout rates, ethnicity, and attendance. Staff data aggregated to campus averages are kept; they include ethnicity, gender, education, experience, age, salaries, and so forth. The data provided through PEIMS are considered to be reliable and valid because of the specific procedures, controls, and audits in place through TEA.

The school-level demographic data collected through TEA for comparison with principal data includes the percentage of economically disadvantaged students, school enrollment, per pupil expenditure, school location, and campus rating. The four campus ratings are: (a) unacceptable, (b) academically acceptable, (c) recognized, and (d) exemplary.

**Data Analysis**

Given the multiple purposes of the study and multiple instruments for gathering information, a multistage data analysis process was utilized. To begin, once the data from the survey were downloaded from Skylight, they were imported into SPSS for statistical analysis. The LEAD Self instrument responses were used to calculate a leadership adaptability score and a major leadership style score for each respondent, the secondary leadership style also became
evident through these calculations. The Distributed Leadership Inventory (DLI) data were used to determine the degree to which women principals distribute support, supervision, participative decision making, and the leadership team collaboration. Factor scores were calculated by summing the response to those items included for each scale.

The second phase included an analysis of differences between respondents and non-respondents using the school level variables provided by the Texas Education Agency because these scores were available for all principals. Examining such differences occurred to provide insight into the nature of a potential response bias. The lack of difference between the two groups on these variables, while not definitive, does provide some evidence of a reduced threat.

Once all the various scores were computed, the descriptive statistics for the 2011 and 1998 samples were performed, including a frequency distribution, mean, median, and standard deviation for each of the variables. The descriptive statistics for the school level variables were also generated for both the 2011 and the 1998 samples. The descriptive analysis of the 2011 data provided information to address the study’s first purpose and the following research questions: (a) who are the women principals of Texas’ secondary schools? (b) what are their leadership styles? (c) how do women secondary school principals in Texas distribute leadership? and (d) what are the organizational characteristics of secondary schools in Texas that possess women principals?

Inferential analyses were then performed to compare the scores of the two samples of women principals 2011 and 1998. These analyses addressed the second purpose for the study identified in the first chapter. A chi square for two-way design was computed for the personal and professional characteristics for these two years of data. A chi-square test can be used to determine whether a statistically significant relationship exists between two discrete variables (Huck, 2008). Alpha was set at .05 for the null hypothesis of independence. Cramer’s $V$ was
calculated to assess the practicality of the observation for those on which significance was found. Specifically, the chi square procedure was performed to assess differences in the proportion of responses 2011 and 1998 for each of the following variables: ethnicity, age, educational level, and years in current position. Such analyses addressed the question: what are the differences between women who are secondary school principals in Texas in 2011 as compared to women who were principals in 1998 in terms of the personal and professional characteristics?

The LEAD Self instrument was administered for both the 2011 and the 1998 survey, therefore the scores for the two samples were compared to address the research question: what are the differences between women who are secondary school principals in Texas in 2011 as compared to 1998 in terms of their leadership styles? Specifically, the leadership adaptability scores and major leadership style scores of women secondary school principals were compared 2011 to 1998. An independent samples t-test was conducted using the mean leadership adaptability scores for the two groups. According to Green and Salkind (2008), “A t test can be applied to address research questions for designs that involve a single sample, paired samples, or two independent samples” (p. 162) to compare means. Setting alpha at .05, the statistic will determine the chance of the observed difference if the null is true. Cohen’s d was calculated to determine the practically of the observed difference. A chi square for two-way design was computed for the major leadership style scores for these two years of data (i.e., major style by year). Again, alpha was set at .05 for the null hypothesis of independence. Cramer’s V was calculated to assess the practicality of the observation.

Finally, to address the question about the differences between the Texas secondary schools administered by women in 2011 and the Texas secondary schools administered by women in 1998 the following tests were performed. Chi square procedures were performed on the school level variables of campus rating and location. Cramer’s V was again calculated to
assess the practicality of the observation as needed. Kolmogorov-Smirnov was performed on the student enrollment data since these scores were not normally distributed. An independent samples t test was used to assess differences on the percentage of students qualified for free and reduced price meals and the accountability passing rate for all tests and students. Cohen’s \( d \) was used to assess the observed effect size for the reported results.

**Ethics**

According to Rubin and Rubin (2005), credibility is demonstrated through transparency. For that reason, care was taken to make the process and questions as clear as possible to the participants. Institutional Review Board Standards were followed to protect the participants. The study was qualified as *exempt* for the following reasons: risks to participants were minimal; the research involved surveying adult educators; no minors were involved; and the research was conducted in established, commonly accepted educational settings (public secondary schools) involving normal educational leadership practices.

The protection of human subjects involves several rights. First, informed consent procedures were followed to insure participants had full knowledge of the study in which they were participating. A letter was sent to participants describing the purpose of the study and the intended use of data. Research participants expressed their willingness to participate in the study through providing their response to the questionnaire. Second, participant confidentiality was protected. Further, the identity of the schools utilized in the study will not be disclosed. Confidentiality of participants and their schools was maintained in order to avoid potential embarrassment to the participants. Participants were able to withdraw at any time without prejudice. No incentives were given for participation in the study. However, the benefit of participation in the survey is that adding to the knowledge base regarding effective leadership
practices and gender may add to the understanding of successful leadership practices, which benefits current and future school leaders.

The data were gathered through a secure server, Washington State University’s Skylight system, and securely stored on the researcher’s password-protected private computer. The sharing of the raw data was limited to the researcher’s dissertation committee chairperson. The data that were utilized from the 1998 study were collected and protected in a similar manner.

**Delimitations and Limitations of the Study**

This study does not fully answer the three problems that were framed as questions in chapter one of the dissertation: (a) what are the personal and professional characteristics of women secondary school principals and on which of these characteristics are differences over time evident? (b) what are the leadership styles and practices of women secondary school principals and in what ways have how they lead changed over time? and (c) what are the organizational characteristics of the secondary schools headed women and how have the schools changed over time? It does, however, move toward some basis to discuss such issues given the delimitations to the State of Texas. To the degree that employment practices and policies in school districts in other states can be said to reflect those of Texas provides the best argument for generalizing the findings beyond the boundaries of the state. The study is also delimited to the years analyzed although it can be also argued that patterns of employment have shown little change.

Another major limitation for this study is its heavy reliance on data collected using self-report. Both the LEAD and the DLI possess 360 equivalents but the 1998 data that had already been collected did not have such detail and therefore would not have been comparable. Both the LEAD Self and the DLI have been used for self assessment. It is assumed subjects responded honestly to the questions on the survey instrument but to what degree and effect can be argued.
The data gathered in 1998 was through mail survey while that gathered in 2011 was through electronic means. It is not clear what the effect of this difference in data collection had on the observations, however, it is assumed to be minimal. What it may have affected was a lower response rate by those who are less electronically proficient. And yet, principals tend to be highly educated and at a minimum electronically competent. It would be surprising that many of those who were approached did not respond because of technology bias. What is more likely is that school district filters on electronic mail treat electronic mailings to large numbers of people in the organization as spam and therefore it is deleted without notification to the sender.

The final limitation concerns the number of inferential tests. There were a total of 10 variables on which hypothesis testing occurred. No corrections were made given the number of tests which leaves open the problem of the inflation of probabilities. Since the degree of danger is small for misstating the nature of effects, or making an alpha error, it was considered a minor limitation for the study’s findings. Furthermore, effect sizes were calculated for all inferential tests where significance was observed. The results that are moderate or large are those that will receive attention, thus reducing further the threat of drawing false conclusions given the probabilities of the observations.
CHAPTER FOUR
RESULTS

Women make up the majority of the teacher work force in the field of education, yet they represent a small minority of secondary school leadership (Grogan, 2005). It is ironic that women have fared less well in obtaining leadership positions in education than they have in the business world, where men make up the majority of the workforce (Sherman et al., 2008). In spite of various policy and institutional changes aimed at encouraging women to go into administration, there has been little improvement in the past two decades (Kaparou & Bush, 2007; Kruger, 2008; Macha & Bauer, 2009; Moreau et al., 2007).

The continued low admittance of women into secondary school educational leadership positions is concerning for a variety of reasons. First, the position of high school principal is a key stepping stone in the path to becoming a superintendent (Sherman et al., 2008). Therefore, the underrepresentation of women in high school principal positions quite possibly contributes to the underrepresentation of women in the superintendent position as well. Second, advocates note that what is prescribed as leadership in general and for schools in particular has changed over the years to increasingly reflect qualities and styles that traditionally have been attributed to women (Christman & McClellan, 2008; Robinson & Lipman-Blumen, 2003; Roser et al., 2009). Given this discovery, researchers have been troubled by the lack of change and suggest there is a disconnect between what is advanced in the literature about effective leadership and leadership as it is practiced in the field of education (Blount, 1998; Grogan, 1999; Kruger, 2008; Mertz, 2006). Furthermore, women administrators have been found to demonstrate those skills most needed to improve school outcomes. For example, women are found to be more proficient than their counterparts at providing instructional supervision, instituting curricular reforms,
communicating, and collaborating (Shakeshaft et al., 1991; Grogan, 1999; Andrews & Basom, 1990). Third, the majority of public school teachers are women; the percent of women in principal preparation programs is higher than that of men; yet more men than women are secondary principals (Logan, 1998; Grogan & Brunner, 2005). Such disproportionality suggests that sexism, bias, and other forms of gender discrimination are present in hiring and related decisions and processes.

Given the above problem delineation, reformers suggest various solutions, including principal preparation program change, which includes better candidate recruitment, screening, and training that creates an understanding of the problem and the potential solutions (Grogan, 1999; Hoff & Mitchell, 2008). Additionally, amendments to laws intended to close loopholes that allow for the continuation of gender bias in hiring processes should be pursued. The significance of the problem, however, suggests that a closer examination is needed to guide proposed changes. For example, while the percentage of women secondary principals may continue to reflect disproportionality as compared to men, understanding the characteristics of the women who have overcome employment barriers to become principals, how they lead, and what kind of secondary schools they administer may offer new solutions to the underrepresentation of women in secondary school leadership positions.

A survey of Texas women secondary principals was conducted in the spring of 2011. The survey largely replicated an earlier study conducted in 1998. The procedures used for the 1998 project are discussed elsewhere (Gates & Siskin, 2001). The 2011 survey was administered via the internet and procedures followed the Tailored Design Method (Dillman et al., 2009). Proportional representative random sampling was used to select the participants for both the 2011 and 1998 studies in order to ensure appropriate representation. The 2011 survey consisted of three major sections: (a) participant demographic questions, (b) The LEAD Self instrument
(Hersey & Blanchard, 1982), and (c) The Distributed Leadership Inventory (Hulpia et al., 2009). School demographic information was obtained from the Texas Education Agency (TEA) website. Gathered data were analyzed to describe the personal and professional characteristics, leadership styles, and organizational variables of the secondary schools in Texas administered by women in 2011 and identify differences between women secondary principals in 2011 and women secondary principals in 1998 on the assessed variables.

Chapter four consists of five sections. The first section provides an explanation of the 2011 survey response rate. The second section describes the personal and professional characteristics of the principals who responded to the 2011 survey, as well as data gathered from the women secondary principals who participated in the 1998 research project. The third section explores data gathered in both 2011 and 1998 that are concerned with the leadership styles and practices of the principals. The fourth section describes the characteristics of the schools administered by the respondents, and analyzes differences in the secondary schools from 1998 to 2011 that are led by the women. The final section provides a brief summary of the results.

**Sample and Response Rates**

Surveys were sent to 117 women secondary school principals from the state of Texas. The sampling frame used to choose the participants consisted of a representative sample of women secondary principals from across Texas. Statistical Package for Social Sciences was used to draw the participant names randomly. Participant names were replaced when email addresses were rejected or a message was sent by the participant stating that she would not be able to participate. Forty-nine surveys were returned completed, for a response rate of 42%. This was a somewhat disappointing return rate from the perspective of generalizing the results of the study. Because there was the possibility of non response bias, school data provided by TEA were examined to compare respondents with non-respondents. As shown in Table 1, principals who
responded appeared to administer schools that enrolled larger numbers of students (i.e., roughly 800 students) as compared to those who were selected (i.e., roughly 700). No other identifiable differences were observed, which suggested the threat of bias may be less of a risk to the study’s observations and conclusions.

Table 1

2011 School Data for Principals Selected and Responded

<table>
<thead>
<tr>
<th></th>
<th>Selected</th>
<th></th>
<th>Responded</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollments</td>
<td>$Mdn = 678$</td>
<td>$Mdn = 832$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students per teacher</td>
<td>$M = 13.4$ (3.7)</td>
<td>$M = 12.9$ (3.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent LSES</td>
<td>$M = 54.9%$ (26.1)</td>
<td>$M = 56.4%$ (26.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountability passing rate</td>
<td>$M = 70.5%$ (17.7)</td>
<td>$M = 68.7%$ (16.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expenditures per student</td>
<td>$Mdn = $7176</td>
<td>$Mdn = $7376</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Personal and Professional Characteristics of Principals**

Both personal and professional characteristics were gathered in the surveys conducted in 2011 and in 1998. The following section describes the aggregated responses for the principals, beginning with the 2011 data concerned with their ethnicity, age, highest degree, years of experience, years teaching, years spent being an administrator, and years in current position, as well as the results from the analyzed data gathered in 1998 on the same or comparable variables. After discussing the descriptive findings, the presentation examines differences between the personal (i.e., ethnicity and age) and professional (i.e., highest degree and experience in current position) characteristics of the principals to assess the nature of observed change on these variables over the 13-year period.
In 2011, the majority (53%) of the women secondary school principals who responded to the question on ethnicity selected the category of Anglo European, 20% identified as Latina, 18% as African American, and 5% chose Native American. No principal responded as Asian American. The majority (43%) of the respondents shared that they were between the ages of 51 and 60. Data on the average age of the principals, the years of experience teaching in classrooms and administering a school, which were collected separately for the 2011 study, provide interesting information. The years of teaching experience prior to becoming an administrator was reported by the women to be 10% for 1-3 years, 43% for 4-8 years, 22% for 9-15 years, and 15% for 16-20 years; 5% selected more than 20 years. The administrative experience reported by the respondents was 10% for 1-3 years, 25% for 4-8 years, 43% for 9-15 years, 20% for 16-20 years, and 3% stated that they had been a principal for more than 20 years. For the number of years of experience as principal in the current location, the most frequently selected response was 4-8 years. Principals were also asked about their highest degree. Three percent of the women principals reported holding a Bachelor’s degree, 80% a Master’s, 5% a Specialist and 13% stated that they held a Doctorate.

In 1998, the majority of the women secondary respondents self-identified as Anglo European (86%), with 6% identifying as Latina, 4% as African American, and 3% as Native American. The majority (41%) of these principals shared that they were between the ages of 41 and 50. Professionally, these women possessed a high degree of experience. Their cumulative teaching and administrative experience (the question did not separate the two areas) possessed a mean score of 24 years ($SD = 7.9$). Principals were found to have been in their current position on average (i.e., modal category) for 4-8 years. The breakdown of the highest degree held by the respondents in the 1998 study included: Bachelor’s degree 1%, Master’s degree 78%, Specialist 13%, and Doctorate 8%.
According to Huck (2008), it is appropriate to use a chi-square test to determine whether a statistically significant relationship exists between two discrete variables. In order to determine whether significant relationships (in this case difference) are present in the results from the two studies, a chi square for two-way design was computed on several of these personal and professional characteristics. Specifically, the variables of ethnicity, age, highest degree, and years in current position were analyzed using this tool. Alpha was set at .05. Cramer’s V was used to calculate the effect size for the chi square comparisons of nominal variables (.10 small, .30 medium, and .50 large) to determine the practicality of the observed change.

A number of the cells on the variable of ethnicity were too small; consequently categories were combined to create a 2 X 2 analysis (i.e., Anglo European versus minority by the two years). The change in the proportion of minority women principals was found to be significant $X^2 (1, N = 106) = 11.2, p = .001$ with a Cramer’s $V = .36$. A value of .36 on Cramer’s $V$ indicated a moderately large effect size. The increase in 2011 as compared to 1998 of the percentage of minority women secondary principals in Texas is an observation that is not likely to have occurred by chance.

Not only were the current women secondary administrators more ethnically diverse than those of the past, but they were also found to be both slightly younger and older than previously observed. The distribution on age was such that principals in the youngest age category were merged with those in the adjacent group to form three groups of adult (i.e., 21-40), middle aged (i.e., 41-50) and mature (i.e., 51-60). Table 2 presents the results for the percentage of women for each category of age by year. The change in the age distribution was found to be significant $X^2 (2, N = 105) = 5.9, p = .05$ with a Cramer’s $V = .24$. The current data reveal a pattern that reflects the dominance of the baby boom generation in the profession, as well as the beginnings of their
replacement as they retire. While this finding is not clear in these numbers, the data do suggest that districts are hiring persons who are younger than 40 to assume the principalship.

Table 2

| 2011 and 1998 Age of Principal |
|-------------------------------|-----------------|
|                               | 2011 | 1998 |
| Adult                         | 27%  | 22%  |
| Middle-aged                   | 20%  | 43%  |
| Mature                        | 53%  | 34%  |

On neither of the professional characteristics, highest degree held and years in current position, were changes found between 2011 and 1998. Cells on both variables were collapsed, given the small size in the expected frequency. Principals with bachelor’s degrees were merged with those who held a master’s, and specialists were merged with those holding the doctorate. Principals with the lengthiest tenure (i.e., 16-plus years) in their current position were merged with those who had been employed for between 9 and 15 years in their current position. The lack of a difference is indicated in the finding of \( X^2 (1, N = 107) = .183, p = .669 \) for highest degree held and \( X^2 (2, N = 107) = 2.319, p = .314 \) for years in current position. No effect size was calculated for either variable because the observed changes between the two years were attributed to chance.

Leadership Styles and Practices of Principals

The public domain version of the LEAD Self instrument (Hershey & Blanchard, 1982) was used to collect data regarding the leadership styles of women secondary school principals in Texas in both the 2011 and the 1998 surveys. The discussion of the responses on the LEAD Self
instrument will begin with the responses from the most recent survey. An item analysis will be presented first. Only the 2011 data are examined in this detail, because such results have been reported elsewhere on the 1998 survey (Gates & Siskin, 2001). The major leadership style (MLS) scores were analyzed, and responses by the principals in 2011 were compared to those gathered in 1998. In addition to the major leadership style, the LEAD Self instrument generates a leadership adaptability score for respondents. The differences between the adaptability scores of the two samples were assessed and are also presented.

The 2011 survey also included the Distributed Leadership Inventory (DLI) (Hulpia et al., 2009), which was not administered in the 1998 survey of principals. The DLI is a recently developed tool that measures the self-perceived leadership practices of respondents. An item analysis for each of its four sections (supervision, cooperation of the leadership team, support, and participative decision making) is the last of the data gathered from principals to be examined before proceeding to the findings in the study that pertain to the organizational characteristics.

Table 3 (p. 64) offers the item analysis for responses of the 49 principals to the LEAD Self instrument. The table identifies by question the most and the least adaptive action by quadrant as proposed in Hersey and Blanchard’s Situational Leadership model, as well as the leadership action selected by participants. The four quadrants correspond to the leadership styles of telling (high task and low relationship), selling (high task and high relationship), participating (high relationship and low task), and delegating (low relationship and low task). The data on the table organizes the principal responses per item from the percentage that responded most congruent to the least congruent, given the theory. For example, on question 7, 69% of principals selected a response that indicated that they would lead by accepting suggestions for change, but would continue personally managing the process of implementation. The majority of the principals selected the most adaptive choice given the situational characteristics of the task and
the behaviors of the followers identified in the prompt. The pattern of responses on the table suggests that principals are selecting responses that indicate a high preference for actions that are aligned with selling or coaching (Quadrant 2), followed by those related to telling (Quadrant 1). The use of both telling and selling styles of leadership occurs even when delegation of the task or support of followers is all that may be required to achieve the desired outcome. Clearly, the choices that are suggestive of delegation were selected infrequently and by only a few of the principals. The other observation evident in the pattern pertains to the selection of high task and low relationship (telling) leadership behaviors for scenarios that are viewed as calling for the exact opposite (i.e., high relationship and low task — participating). Twice, on questions 9 and 5, a large majority (i.e., 79% and 61% respectively) of women principals declared this as their preferred type of involvement. The preponderance of action attributed to or aligned with the first two styles of leading (telling and selling), particularly in situations that appear to require delegation or support, will be discussed later in chapter five and after further review and analysis of findings.

Data on school-level variables (school size, location, enrollment, percentages of free and reduced priced meals, and per pupil expenditures), which will be provided later, may provide insight into the context of the work including; accountability, responsibilities, and challenges that these respondents face on a daily basis. Additionally, that school data may provide partial validity for the results of the survey, given the choices the women have reported as reflecting their leadership styles. The school level variables may also provide insight into the nature of potential professional development, as well as recommendations for work modification that will be valuable not only for these women, but for the staff and students whose lives are profoundly influenced by the leadership provided by these women secondary school administrators.
Table 3

2011 Lead Self Responses

<table>
<thead>
<tr>
<th>Adaptive Action Most/Least</th>
<th>Quad1</th>
<th>Quad2</th>
<th>Quad3</th>
<th>Quad4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q7. Quad2 / Quad1</td>
<td>6%</td>
<td>69%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Q11. Quad2 / Quad1</td>
<td>4%</td>
<td>42%</td>
<td>50%</td>
<td>4%</td>
</tr>
<tr>
<td>Q8. Quad1 / Quad3</td>
<td>25%</td>
<td>51%</td>
<td>10%</td>
<td>14%</td>
</tr>
<tr>
<td>Q1. Quad1 / Quad4</td>
<td>20%</td>
<td>74%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Q4. Quad3 / Quad2</td>
<td>4%</td>
<td>68%</td>
<td>20%</td>
<td>6%</td>
</tr>
<tr>
<td>Q12. Quad2 / Quad3</td>
<td>26%</td>
<td>11%</td>
<td>32%</td>
<td>32%</td>
</tr>
<tr>
<td>Q2. Quad1 / Quad2</td>
<td>4%</td>
<td>49%</td>
<td>45%</td>
<td>2%</td>
</tr>
<tr>
<td>Q10. Quad4 / Quad2</td>
<td>36%</td>
<td>62%</td>
<td></td>
<td>2%</td>
</tr>
<tr>
<td>Q3. Quad4 / Quad3</td>
<td>2%</td>
<td>78%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Q6. Quad4 / Quad3</td>
<td></td>
<td>43%</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td>Q5. Quad3 / Quad1</td>
<td>61%</td>
<td>39%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q9. Quad3 / Quad1</td>
<td>79%</td>
<td>21%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The major leadership style (MLS) of each participant is determined by identifying the quadrant in which the participant had the highest number or percentage of responses. The MLS is the behavior that the leader most often uses when attempting to influence followers. The percentage of responses by quadrant for the 2011 and 1998 studies are displayed in Table 4. In both years, the MLS appeared fairly constant in that roughly three-quarters of the respondents selected responses that demonstrated preference for quadrant 2, or those actions most parallel to the *selling* or *coaching* style of leadership. The second largest group of principals, however,
moved from quadrant 3 (*participating*) in 1998 to quadrant 1 (*telling*) in 2011. In other words, it appears that a fair percentage of respondents gravitated in 2011 to a *telling or directive* mode of leading their schools, which was not the case 13 years previous. One other key finding is present on the table about the major style of leading that surfaced from the study that substantiates those discussed earlier, given the item analysis. None of the principals in either year surveyed were found to self-report *delegation* as their major style. Such findings may provide an important qualification about the nature of leading schools, or speak to how these practicing administrators perceive their jobs.

Table 4

*2011 and 1998 Major Leadership Style*

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrant 1</td>
<td>18%</td>
<td>6%</td>
</tr>
<tr>
<td>Quadrant 2</td>
<td>75%</td>
<td>72%</td>
</tr>
<tr>
<td>Quadrant 3</td>
<td>6%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Analysis of differences in the MLS scores of principals in 2011 as compared with scores of principals in 1998 employed a chi square procedure. As may be expected given the distribution of scores shown on the table above, a significant relationship between the variables of MLS and year was observed $X^2(2, N = 118) = 8.72$, $p = .01$, Cramer’s $V = .27$. The observed difference between how principals scored in 2011 as compared with the MLS in 1998 is not attributable to chance, and it is an effect of moderate size. The major style of leading exhibited in the choices of women secondary school principals in Texas on the LEAD Self instrument suggests a noticeable shift in the proportion of administrators who report engaging in supportive
behaviors to those who reflect a more directive style with their staff.

The LEAD Self instrument also generates a leadership adaptability score. Hersey and Blanchard discuss this score as a measure of both flexible and appropriate selection of leadership action given important situational cues. Table 5 offers the mean scores and standard deviation for both samples. The average adaptability score of women principals for the 1998 sample was approximately 10 and has been discussed elsewhere. The mean leadership adaptability score for the 2011 sample was 5. Even though both scores are considered to be in the effective range, a score of 5 reflects a style that is less flexible and less adaptive as was evident on both item and MSL analyses presented above. With a standard deviation of 5 in 2011, 64% of the scores of women secondary principals fell between 0 and 10 given the normality of the distribution.

Table 5 also provides the results of an independent samples $t$ test that was conducted to assess the observed differences on the adaptability scores of principals using year of study as the independent variable. The analysis was intended to address the question of whether women secondary school principals lead differently now than did women secondary school principals in the past. The results indicate there is a statistically significant difference in the scores at $p < .05$ (the assumption of equal variance was satisfied) and a large effect size $d = 1.0$ was calculated. Effect sizes for Cohen’s $d$ are .2 small, .5 medium, and .8 large. The effect size of 1.0 presents a strong argument for identified change in the leadership adaptability scores of women secondary principals in Texas. The direction of change is presumed to be toward less effective leadership strategies given their context. The implication of this finding will be developed after other data gathered from the principals about their leadership practices and TEA demographic data regarding the schools the women lead have been examined.
A distributed leadership perspective treats the situation differently. Distributive leadership views the situation as an interaction between leaders and followers (Spillane, 2006). Further, Spillane asserts that the distributed perspective allows for collaboration between the leader and follower. Secondary schools are often large and complex, with leadership demands that cannot be fulfilled by one person; therefore, it seems that shared and distributed leadership practices would be essential for organizational success.

The DLI has four measures: (a) supervision, (b) support, (c) cooperation of the leadership team, and (d) participative decision making. Responses for the questions on the DLI were based on a Likert scale of 1 to 4 (never, sometimes, often, always) and 1 to 5 (strongly disagree, disagree, neutral, agree, strongly agree). An item analysis of the data gathered in 2011 using the DLI is presented in Tables 6 through 9. Each table shows the results for a specific section of the DLI. A lower distribution score indicates higher centralization of a leadership function; conversely, a high score indicates more equal distribution of responsibilities among the members of the leadership team.

The supervision of teachers is a leadership function that focuses predominantly on the ability of the principal to direct, control, and monitor teachers (Hallinger & Murphy, 1985). The
principal’s responses on the supervision section of the DLI suggest high levels of involvement in summative and formative evaluation of teachers, with formal evaluations taking place less often. Respondents reported being *always* involved in evaluation when evaluation takes place. Across the sample, women were more consistent in selecting *always* for summative evaluation involvement. More women selected responses that indicated that they were less involved in formative evaluation of teachers as compared with summative evaluation. The frequency of involvement in evaluation of staff was reported as *often*. This is not surprising given the results of previous research (Spillane, 2006; Goldstein, 2003), which will be discussed in Chapter five.

Table 6

*2011 Supervision*

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>M</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent are you involved in summative evaluation of teachers?</td>
<td>45</td>
<td>3.6</td>
<td>4</td>
<td>0.5</td>
</tr>
<tr>
<td>To what extent are you involved in formative evaluation of teachers?</td>
<td>48</td>
<td>3.5</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>How often do you evaluate the performance of the staff?</td>
<td>48</td>
<td>3.1</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>Distribution of supervision total</td>
<td></td>
<td>3.4</td>
<td></td>
<td>.6</td>
</tr>
</tbody>
</table>

Responses to the cooperation of the leadership team section of the DLI indicate that the principals perceive the presence of high levels of collaboration among leadership team members. Collaboration/cooperation of the leadership team is characterized by group cohesion, clearly identified roles of team members, and a focus on well-articulated common goals. The high scores on the questions specific to individual team members’ capabilities, performance, and acting in
the best interest of students and staff suggest high levels of trust on the team. Distribution of leadership is marked by individuals’ operating in a cooperative and collaborative manner, not just through delegation of tasks. When effective distribution of leadership is present, all members pool their expertise and work in an interactive way (Gronn, 2002). When viewed from that perspective, the high scores on the cooperation section of the DLI are congruent with the lack of responses to delegating tasks found though the LEAD Self.

It would seem reasonable to assume that with the high levels of cooperation reported on the DLI, there would be a higher percentage of women who reported a participating style of leadership through the LEAD Self. However, the assumptions of the leader when using a participating style as described in situational leadership theory is quite different from the notion of cooperative or collaborative leadership as described through a distributed leadership lens. As stated above, distributed leadership theory assumes all members will pool their resources and expertise for the common good of the school. Situational leadership theory presumes a participatory style of leadership is necessary when an employee is not motivated, or lacks confidence to complete a task. These concepts will be discussed further in chapter five in connection with other contributing variables.

The highest mean scores in the support section of the DLI fell in the categories that were related to taking care of teachers. Taking care of teachers was defined as providing support, being available to them, and looking out for their welfare. Additionally, Hulpia et al. (2010) interpreted support to include motivating and stimulating teachers, tasks that are considered to be easily distributed to other members of the team (Heller & Firestone, 1995; Locke, 2003). The principals responded that they always look after teachers’ welfare, and are always available to provide assistance after school, and always encourage, but indicated that they helped less frequently: They responded that they often help. Further, the principals indicated they spend
slightly less time in the areas of providing rationale for their feedback to teachers and in reevaluating the vision than on helping. These results suggest that the principals are available to help more often than they actually provide help.

Table 7

2011 Cooperation of the Leadership Team

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>M</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my school, the leadership team is composed of people who are highly competent.</td>
<td>47</td>
<td>4.6</td>
<td>5</td>
<td>0.57</td>
</tr>
<tr>
<td>The leadership team is willing to execute a good idea.</td>
<td>48</td>
<td>4.5</td>
<td>5</td>
<td>0.82</td>
</tr>
<tr>
<td>There is a well-functioning leadership team in our school.</td>
<td>48</td>
<td>3.5</td>
<td>4</td>
<td>0.92</td>
</tr>
<tr>
<td>The team acts in the best interests of students and staff.</td>
<td>48</td>
<td>4.5</td>
<td>5</td>
<td>0.83</td>
</tr>
<tr>
<td>Members of the leadership team know which tasks they have to perform.</td>
<td>47</td>
<td>4.5</td>
<td>5</td>
<td>0.83</td>
</tr>
<tr>
<td>The leadership team supports the staff in order to achieve the school’s goals.</td>
<td>48</td>
<td>4.4</td>
<td>5</td>
<td>0.65</td>
</tr>
<tr>
<td>The responsibilities of the leadership team are clear to its members.</td>
<td>48</td>
<td>4.4</td>
<td>5</td>
<td>0.9</td>
</tr>
<tr>
<td>All members of the leadership team work together on the school’s core objectives.</td>
<td>48</td>
<td>4.4</td>
<td>5</td>
<td>0.68</td>
</tr>
<tr>
<td>Members of the leadership team have clearly defined roles.</td>
<td>48</td>
<td>4.2</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Members of the administrative team divide their time appropriately.</td>
<td>46</td>
<td>4.2</td>
<td>4</td>
<td>0.91</td>
</tr>
<tr>
<td>Cooperation of leadership team total</td>
<td>4.4</td>
<td></td>
<td>.8</td>
<td></td>
</tr>
</tbody>
</table>
Table 8

2011 Support

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>M</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you look out for the personal welfare of teachers?</td>
<td>47</td>
<td>3.7</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>Are you available after school to assist teachers?</td>
<td>48</td>
<td>3.6</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>To what extent do you encourage teachers to pursue goals for their professional learning?</td>
<td>47</td>
<td>3.6</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>To what extent do you encourage teachers to try new practices consistent with their own interests?</td>
<td>48</td>
<td>3.5</td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td>How often do you help teachers?</td>
<td>47</td>
<td>3.4</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>How often do you compliment teachers?</td>
<td>46</td>
<td>3.4</td>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>How often do you provide collaborative time for teachers?</td>
<td>48</td>
<td>3.3</td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td>Do you explain your rationale for feedback to teachers?</td>
<td>48</td>
<td>3.2</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>How frequently do you share the vision of the school?</td>
<td>48</td>
<td>3.2</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>How often do you reevaluate the school vision?</td>
<td>48</td>
<td>2.9</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Distribution of support total</td>
<td></td>
<td>3.4</td>
<td></td>
<td>.6</td>
</tr>
</tbody>
</table>

In the area of participative decision making, principals perceived high levels of involvement, effective communication, and delegation, which are key tenets of distributed leadership practices, with a modal response of agree in all categories. Spillane (2006) referred to
participative and distributed practices of decision making and collaboration between leaders and followers as co-leadership. The lowest of the agree scores on the participative decision-making section of the DLI were on the response to the statement *leadership is broadly distributed among the staff*. Interestingly, Short and Rinehart (1992) reported that participation of teachers in decision making can have negative outcomes, such as increasing the potential for conflicts and miscommunication. Conversely, Knoop (1995) concluded that leaders and employees making decisions jointly were related to positive organizational outcomes.

Table 9

2011 Participative Decision Making

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>M</th>
<th>Mode</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective communication among staff is facilitated</td>
<td>48</td>
<td>4.4</td>
<td>4</td>
<td>.5</td>
</tr>
<tr>
<td>Teachers have adequate involvement in decision making</td>
<td>48</td>
<td>4.2</td>
<td>4</td>
<td>.6</td>
</tr>
<tr>
<td>There is an appropriate level of autonomy in decision making</td>
<td>47</td>
<td>4.2</td>
<td>4</td>
<td>.5</td>
</tr>
<tr>
<td>Leadership is delegated for activities critical for achieving school goals</td>
<td>48</td>
<td>4.2</td>
<td>4</td>
<td>.9</td>
</tr>
<tr>
<td>There is an effective committee structure for decision making</td>
<td>47</td>
<td>4.2</td>
<td>4</td>
<td>.7</td>
</tr>
<tr>
<td>Leadership is broadly distributed among the staff</td>
<td>48</td>
<td>3.9</td>
<td>4</td>
<td>.8</td>
</tr>
<tr>
<td>Participative decision-making total</td>
<td></td>
<td>4.2</td>
<td></td>
<td>.7</td>
</tr>
</tbody>
</table>
School Characteristics

Data on school-level variables for the sampled administrators were downloaded from the Texas Education Agency’s (TEA) Public Education Information Management System (PEIMS). In addition, the surveys of principals included questions about the schools administered by the respondent. The analysis of data for these variables provides key information about the nature of the secondary schools administered by women in Texas and may offer insight on ways that hiring and placement decisions of women have changed since 1998. Unlike the previous sections, the findings presented in this section treat data from 1998 alongside the more recent information about the schools.

Public education in Texas has probably been most heavily influenced, as compared with educational systems in other states, by the accountability movement. One of the key features of educational accountability in Texas has been the Academic Excellence Indicator System (AEIS). Schools and districts in Texas are ranked according to student performance measures gathered by the state as compared with established standards. The standards have changed over the years, as have the tests that are administered to students. The school ratings were examined to begin the description of the kind of secondary campuses where women have been given primary responsibility and oversight of student learning. Table 10 provides the percent of campuses administered by women in both 2011 and 1998 by campus ratings. Five campuses were not rated in 1998 because they were alternative schools with too few students. These five campuses were excluded from the table and analysis. Campuses that meet the highest measures of performance are rated by AEIS as Exemplary, with decreasing distinction as evident in the labels of Recognized, Academically Acceptable, and Academically Unacceptable. Given the categorical nature of the data, the procedure of chi square was used to assess the difference in the proportion of campuses per rating in 2011 as compared with 1998. The shift in the majority of campuses
from *Academically Acceptable* in 1998 to *Recognized* in 2011 was found to be significant $X^2(2, N = 113) = 18.39, p = .00$, Cramer’s $V = .40$. The magnitude of the effect is moderate to large as seen in Cramer’s $V$. Although there is a larger proportion of campuses that were rated as exemplary in 1998 as compared with 2011, for the majority of these schools, student outcomes have improved, at least as they are measured or represented overall by the accountability system. Since the modal response for length of time in current position was 4-8 years for principals on both surveys, these campus ratings can be considered to have been achieved, to some degree, due to the skills of their current leadership. This position is stated recognizing the caveat that debate continues over the relationship of principal leadership and student performance.

Table 10

*Comparison of 2011 and 1998 Campus Ratings*

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exemplary</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>Recognized</td>
<td>53%</td>
<td>16%</td>
</tr>
<tr>
<td>Academically acceptable</td>
<td>35%</td>
<td>54%</td>
</tr>
</tbody>
</table>

In addition to AEIS ratings, Table 11 provides further description about the campuses of these principals by sharing the median student enrollment and expenditures per student for both samples, as well as means and standard deviations for the number of students per teacher, percent of students qualified for free and reduced price meals (LSES), and accountability rating. The descriptive statistics showed that the secondary schools administered by women in 2011 appeared to be much larger than schools lead by women in 1998. However, results of Kolmogorov-Smirnov’s two independent samples test suggested that such difference was likely a
product of chance Kolmogorov-Smirnov $Z(118) = 1.09$, $p = .19$. As an aside, it noted that of the top 20% (i.e., those schools enrolling more than 1,800 students) almost 3/5ths were identified as those administered by women in 2011. While the student body may not be significantly larger, the schools had on average become increasingly populated by students qualified for free and reduced price meals $t(116) = 3.96$, $p = 0.00$, $d = .74$, which indicated a large non chance effect. Despite increases in the poverty rates and more rigorous tests (i.e., the Texas Assessment of Knowledge and Skills [TAKS] was administered in 2011 and is a more difficult test than the Texas Assessment of Academic Skills [TAAS] which it replaced in 2003) the percentage of students meeting standard on the accountability passing rate for all tests and all students has remained on average unchanged $t(116) = 1.3$, $p = .19$. However, the increase in the overall assessment of school outcomes as reported in the higher campus ratings, consistency in the accountability passing rates, while facing higher poverty levels points to strength in leadership that will be discussed in chapter five. The cost of education has increased, unsurprisingly, as seen in the median expenditures per pupil. In 2011, the average secondary school administered by a woman was found to possess a budget that surpassed six million dollars annually.

Table 11

2011 and 1998 School Data

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollments</td>
<td>$Mdn = 832$</td>
<td>$Mdn = 572$</td>
</tr>
<tr>
<td>Students per teacher</td>
<td>$M = 12.9$</td>
<td>$(3.7)$ $M = 13.4$</td>
</tr>
<tr>
<td>Percent LSES</td>
<td>$M = 56.4%$</td>
<td>$(26.4)$ $M = 37.6%$</td>
</tr>
<tr>
<td>Accountability passing rate</td>
<td>$M = 68.7%$</td>
<td>$(16.9)$ $M = 73.4%$</td>
</tr>
<tr>
<td>Expenditures per student</td>
<td>$Mdn = $7376</td>
<td>$Mdn = $4025</td>
</tr>
</tbody>
</table>
The final school-level variable examined pertains to location. In the 1998 study, the majority (62%) of the women were principals of schools located in suburban and rural locations. The responses from the 2011 study indicated that the majority (86%) of the women were principals of schools located in urban and suburban areas (see Table 12). The locations of the schools the women were leading in 2011 compared with 1998 were found to be significantly different $X^2(2, N = 116) = 9.31, p = .01$, Cramer’s $V = .28$. There is a small to moderate effect given the shift of women from rural to urban schools; however, in both years suburban secondary schools can be seen as providing many of their positions, indicating there is limited practical significance to this finding. Nonetheless, the shift from rural to urban locations may contribute to the larger school enrollments and higher rates of poverty reported for the 2011 study.

Table 12

*Comparison of 2011 and 1998 School Location*

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>43%</td>
<td>22%</td>
</tr>
<tr>
<td>Suburban</td>
<td>43%</td>
<td>40%</td>
</tr>
<tr>
<td>Rural</td>
<td>14%</td>
<td>37%</td>
</tr>
</tbody>
</table>

**Chapter Summary**

The results presented are interpreted to indicate that there is a statistically significant increase in the proportion of women principals who identified themselves as being from ethnic minorities in 2011 as compared to 1998. The significantly larger percentage of non-Anglo European women principals in the 2011 study suggests that progress has been made in obtaining a more diverse group of principals. Additionally, the women who responded in 2011 spanned a
wider age range (younger and older) than was previously observed. This change may be a reflection of the replacement of the baby boom generation in the profession as principals from that age group retire. The number of years of teaching experience before becoming an administrator was not collected separately in the 1998 data, so a comparison cannot be made. However, it is interesting to note that the majority of the women respondents in 2011 reported having 4-8 years of teaching experience prior to becoming a principal. That statistic is dissimilar from previous research findings regarding women’s teaching experience and more similar to the teaching experience reported for men (Eckman, 2004), which will also be discussed in chapter five. The highest degree attained by the principals has remained consistent, as has the number of years in the current principal position.

Patterns of responses given by the women principals regarding their leadership styles showed significant and moderate change. Although the predominant leadership style among the women remained selling, there has been a shift for a minority of principals from a participating style to a more directive leadership style. Moreover, the women’s adaptive leadership scores were lower in 2011 than in 1998. A lower adaptability score reflects a style that is less flexible and suggests the women are using a more consistent approach when dealing with varying situations. Yet, the women self-reported high levels of distributive leadership practice in their schools, which relies on cooperation, collaboration, support, sharing of leadership, and participative decision making. The highest responses to questions about distribution of leadership fell in the areas related to trust in the competence of team members, their motivation to act in the best interest of students, and support for the welfare of teachers. Conversely, while the principals’ responses indicated high levels of distribution of leadership among the leadership team, the lowest score was in response to the statement leadership is broadly distributed among the staff.
At first glance, the women’s leadership styles as measured by the LEAD Self seem to be in stark contrast to their responses on the DLI. Further, their leadership styles and adaptability, as measured by the LEAD Self, may seem counter to those suggested by researchers as effective leadership practices. However, this phenomenon may seem less incongruent after exploring it in conjunction with school level variables and the increased pressures for academic accountability that school leaders have faced in Texas for the past decade.

The results of the study reveal several changes over the past 13 years in the schools the women lead. There was a statistically significant and moderate difference in the location of the schools women administer, from rural to urban districts. In both 2011 and 1998, more suburban secondary schools employed women principals than either urban or rural districts. The increase of women in urban locations may contribute to the significant and large effect size evident in the increase in the percentage of students qualified for free and reduced price meals. What is interesting is that movement into urban schools has resulted in only small increase higher enrollments. It will be interesting to observe as time proceeds whether these younger women hired in the smaller urban schools can successfully compete for the promotion to the larger high schools.

Finally, it is of particular interest that even though the levels of poverty have risen in the schools, the campus ratings of the schools administered by these women have increased, which is counter intuitive. High levels of poverty are generally negatively correlated with achievement. While the relationship between leadership and student performance is small to moderate (Marzano et al. 2005) these findings suggest the reported leadership styles of the women may not be as non-adaptive as assessed by the LEAD Self. Clearly, the leadership behaviors of the women that are contributing to the maintenance or improvement of student performance in schools needs further attention. These findings provide further argument that women principals
can lead successfully in larger more complex settings. It is time for districts to let go of stereotypes and biases during hiring and give serious attention to the qualified women applicants for high school principalships. The discussion of these findings including their implication, recommendations for practice, and further research is provided in chapter five.
CHAPTER FIVE

SUMMARY AND DISCUSSION

Researchers call for examination of progress for women in educational administration to formulate more equitably responsive practices and policies. Creating gender equity in the high school principalship can be seen, for a variety of reasons, as promising to provide answers for many problems including poor outcomes for high school students to low representation of women superintendents. The purposes for this dissertation were twofold. First, the research sought to describe women secondary school principals in Texas including their personal and professional characteristics as well as information about how they lead. The other component of this dissertation centered on examining the school data of the women principals. The following research questions were encompassed under this purpose: (a) who are the women principals of Texas’ secondary schools? (b) what are their leadership styles? (c) how do women secondary school principals in Texas distribute leadership? and (d) what are the organizational characteristics of secondary schools in Texas that possess women principals? The second purpose of the study was to examine differences between the 2011 sample and 1998 sample. There are three research questions encompassed under this purpose: (e) what are the differences between women who are secondary school principals in Texas in 2011 as compared to women who were principals in 1998 in terms of their personal and professional characteristics? (f) what are the differences between women who are secondary school principals in Texas in 2011 as compared to 1998 in terms of their leadership styles? and (g) what are differences between the Texas secondary schools administered by women in 2011 and the Texas secondary schools administered by women in 1998? By answering these questions the study provides information to better understand the nature of change over the past 13 years for women administrators of
secondary schools in Texas. They are answers that offer insight that may be useful in reducing underrepresentation in the future.

Women make up the majority of the teacher work force in the field of education, yet they represent a small minority of secondary school leadership (Grogan, 2005). It is ironic that women have fared less well in obtaining leadership positions in education than they have in the business world where men make up the majority of the workforce (Sherman, Munoz, & Pankake, 2008). In spite of various policy and institutional changes aimed at encouraging women into administration there has been little improvement in their representation during the past two decades (Kaparou & Bush, 2007; Kruger, 2008; Macha & Bauer, 2009; Moreau, Osgood, & Halsall, 2007).

The continued low admittance of women into secondary school educational leadership positions is concerning for a variety of reasons. First, the position of high school principal is a key stepping stone in the path to becoming a superintendent (Sherman, et al., 2008; Shakeshaft, 1987). Therefore, the underrepresentation of women in high school principal positions may contribute to the underrepresentation of women in the superintendent position as well. Second, advocates note that what is prescribed as leadership in general and for schools in particular has changed over the years to increasingly reflect qualities and styles that have been traditionally attributed to women (Christman & McClellan, 2008; Robinson & Lipman-Blumen, 2003; Roser, Brown, & Kelsey, 2009). Given this evolution, researchers have been troubled by the lack of change and suggest there is a disconnect between what is advanced in the literature about effective leadership and leadership as practiced in the field of education (Blount, 1998; Grogan, 1999; Kruger, 2008; Mertz, 2006). Furthermore, women administrators have been found to demonstrate those skills most needed to improve school outcomes. For example, women are found to be more proficient than their male counterparts at providing instructional supervision,
instituting curricular reforms, communicating, and collaborating (Shakeshaft, Nowell, & Perry, 1991; Grogan, 1999; Andrews & Basom, 1990). The majority of public school teachers are women, the percent of students in principal preparation programs is higher for women than men, yet more men than women are secondary principals (Logan; 1998; Grogan & Brunner, 2005). Such disproportionality suggests that sexism, bias, and other forms of gender discrimination are present in hiring and related decisions and processes.

Some education reformers suggest various solutions to the problems outlined above including principal preparation program change, which includes better candidate recruitment, screening, and training that creates an understanding of the problem and the potential solutions (Grogan, 1999; Hoff & Mitchell, 2008). Additionally, amendments to laws intended to eliminate processes that allow for the continuation of gender bias in hiring processes should be pursued. The significance of the problem suggests that a closer examination is needed to guide proposed changes. For example, while the percentage of women secondary principals may continue to reflect disproportionality as compared to men, understanding the characteristics of these women may suggest that progress has not been completely stalled.

Chapter five continues by providing discussion of the major findings. This section is followed by a reminder of the study’s limitations and delimitations. The third section explores the implications of the findings given the limitations for practice. Finally, a section on recommendations for future research and concluding remarks are offered.

Discussion of Major Findings

The results presented are interpreted to indicate that there is a statistically significant difference in the number of women principals who identified themselves as being from ethnic minorities. Cramer’s V was calculated at a value of .36 indicating a moderately large effect size, suggesting that the observed association is not likely to have occurred by chance. Additionally,
the change in the age distribution of the women was found to be significant. Cramer’s V was calculated at .24 suggesting some practical significance to the finding. Specifically, the women who responded to the 2011 survey spanned a wider range of ages (younger and older) than previously observed in the 1998 group of women. Significant differences were not found in the highest degree held by the women or in the number of years they have held their current administrative position.

Through a chi square analysis procedure significant changes in the patterns of responses given by the women principals regarding their leadership styles in 2011 as compared to 1998 were found, with a moderate effect size at .27. While the predominant leadership style among the women remained selling there has been a shift from the secondary style of participating to a more directive leadership style among the women. Moreover, the women’s adaptive leadership scores differed significantly from the scores of the 1998 respondents determined through an independent samples t test. The effect size of 1.0 as measured by Cohen’s d indicates a strong argument for the identified change in the leadership adaptability scores of the women. Unfortunately, the change was to a less adaptable style. Yet, the women self reported overall high levels of distributed leadership in their schools for all four areas measured (supervision, support, cooperation, and participative decision making). At first glance these findings seem incongruent with each other and counter to current research regarding effective leadership (Spillane, 2006; Marzano, et al., 2005; MacBeath, et al., 2004; Louis, et al. 2010), however further examination along with the context of other variables allow for other conclusions, which will be discussed later in this section.

The school level variables that were found to be significantly different in the two studies were the campus ratings and the change in the location of the schools that women were leading. The Cramer’s V calculated for the location indicated a small to moderate effect, therefore the
practical significance of this finding may be limited. There was a significant shift from rural to urban locations; however, it was not found to have resulted in statistically significant increases in student enrollment. Such findings suggest that the urban schools women are leading are not those which are large and which tend to attract the visibility and prestige necessary for moving into the superintendency. The urban schools women now administer can be seen as contributing to the findings that the school’s possess significantly higher rates of student poverty and perhaps even to the changes in the leadership styles of the women. The suggestion that leadership styles may have changed in response to challenges of urban schools is supported by previous research, which stated that leadership styles are not fixed, but change given the needs of the environment (Eagly, 2007).

The findings described above suggest that despite the continued underrepresentation of women in secondary school leadership positions some progress has been made. For example, the finding that the women leading secondary schools in 2011 were significantly more ethnically diverse than women principals of the past indicates progress for women. The moderately large effect size associated with this finding suggests this observation was not likely to have occurred by chance. It is possible that the increase in diversity is connected to the increase in the number of women who are leading urban schools. Urban locations tend to be more ethnically diverse; therefore, the increase in diversity of the women principals may be an indication of hiring practices that reflect a desire to create a staff composition that mirrors that of the community. A second explanation is that adherence to affirmative action requirements insuring fair hiring practices has increased the leadership opportunities for women of color, which supports previous research (Crosby, Iyer, & Sincharoen, 2006; Kalev, Kelly, & Dobbin, 2006).

The finding that women are on average spending 4 to 8 years teaching before becoming an administrator instead of the average of 13 years reported in previous studies (Eckman, 2004;
Grogan & Brunner, 2005) suggests progress because this is more in line with the amount of experience men are reported to possess before entering administration. Further, the finding that there is a greater span in the distribution of ages for the women principals (younger and older), suggests that women are entering the principalship at younger ages, which is again more comparable to data for men (Eckman, 2005). Further, current data reveal a pattern that reflects the dominance of the baby boom generation in the profession, as well as the beginnings of their replacements as they retire. The women entering administration appear to be largely under the age of 40. The entrance into administration at a younger age suggests women are not waiting as long to enter administration, which is another sign of progress. However, it is possible this shift to women who have spent fewer years in the classroom and who entered administration at a younger age, may have influenced the changes in the major leadership styles of the women found in the study. Gates and Siskin (2001) reported that as years of experience decreased the probability that a principal would use a more directive leadership style increased, particularly in high schools with a high percent of economically disadvantaged students.

The major style of leading exhibited in the choices of women secondary school principals in Texas on the LEAD Self demonstrated a noticeable shift in the proportion of administrators who reported engaging in supportive behaviors to those that reflect a more directive style with their staff. The major leadership style (MLS) of each participant was determined by identifying the quadrant in which the participant had the highest number or percentage of responses. The MLS is the behavior that the leader most often uses when attempting to influence followers. In both years, the MLS appeared fairly constant in that approximately three quarters of the respondents selected responses that demonstrated preference for quadrant 2 or those actions most parallel to the selling or coaching style of leadership. The second largest group of principals, however, shifts from quadrant 3 (participating) in 1998 to quadrant 1(telling) in 2011. In other
words, it appears that a fair percentage of respondents gravitated in 2011 to a *telling* or *directive* mode of leading their schools, which was not the case 13 years ago.

Another key finding regarding the major style of leading that surfaced substantiates those discussed earlier given the item analysis. None of the principals in either year surveyed were found to self report *delegation* as their major style. This finding may provide an important qualification about the nature of leading schools, or speak to how these practicing administrators perceive their jobs. Certainly, the extreme pressure for academic accountability has created a tremendous sense of responsibility in principals at all levels. For example, the federal *turn around model* that advocates for the removal of the school principal from a persistently low performing school, sends a strong message about who is ultimately responsible for student and organizational success. On the other hand, the finding that these leaders do not delegate tasks may be misleading. There are many management activities involved with leading a large comprehensive secondary school that are delegated, but were not revealed by the LEAD Self, such as: discipline, scheduling, athletics, and co-curricular activities etc.

In addition to the MLS and Secondary Leadership Style (SLS) the LEAD Self generated a leadership adaptability score. Hersey and Blanchard discuss the score as a measure of both flexible and appropriate selection of leadership action given important situational cues. The average adaptability score of women principals for the 1998 sample was approximately 10 (Gates & Siskin, 2001). The mean leadership adaptability score for the 2011 sample was 5, which reflects a style that is less flexible and less adaptive, as was evident by the MLS scores. An independent samples *t* test was conducted to assess the observed differences on the adaptability scores of principals using year of study as the independent variable. The direction of change found was toward less effective strategies given their context. However, data on school level variables may provide insight into the context of the work, level of accountability,
responsibilities, and challenges that these respondents face daily and provide partial validity for the results.

Gates and Siskin (2001) reported that “for every percentage increase in students economically disadvantaged for a school, the odds increase by three percent that the administrator will report using a telling leadership style” (p. 177). While there was no attempt to find the specific correlations between leadership style and socio-economic status in the study it does appear that the findings in 2011 support their statement. There were higher levels of poverty noted in 2011 and the use of a more telling style of leadership increased from 1998.

Over the past 13 years, in Texas, there has been a shift in the location of the schools women lead from mostly rural and suburban to mostly urban and suburban. Urban schools are generally larger with higher rates of poverty than rural schools, which is also present in the descriptive findings. Previous researchers (Haycock & Hanushek, 2010; Touchton & Acker-Hocevar, 2006) have discussed the shortage of highly qualified teachers in high poverty urban areas where effective teachers are especially needed to narrow the achievement gap. The researchers noted that teachers in these schools are often inexperienced and under-resourced. According to situational leadership theory a more directive or telling style of leadership is needed when you have an employee who does not have the necessary skills to complete a task (in this case effective instruction). It takes time for teachers to become proficient instructors, at least three years according to Haycock and Hanushek. Further, they stated that teachers new to the profession often begin their teaching careers in high poverty urban areas and then move to higher paying positions in other schools or districts after they have gained experience, which creates a continuous cycle of inexperienced teachers at schools in particular need of skilled ones. This finding also provides insight into the nature of professional development and recommendations for work modification that will be valuable for not only these women, but the
staff, and students whose lives are profoundly influenced by the leadership of these secondary school administrators. A final conclusion for the more directive style found in 2011 supports previous research findings that women who are successful in leadership tend to use both the supportive styles attributed to women and the more directive styles typically attributed to men (Eagly, 2007).

The more directive responses of the women to the LEAD Self may seem incongruent to their responses to the DLI, on which they reported high levels of distributed and supportive leadership within their buildings. However, these responses may not be as incongruent as they appear. The DLI has four measures: (a) supervision, (b) support, (c) cooperation of the leadership team, and (d) participative decision making. A lower distribution score indicates higher centralization of a leadership function; conversely, a high score indicates more equal distribution of responsibilities among the members of the leadership team. The differing interpretations of situation between the two theories may also explain the dissimilar responses on the two instruments. With situational leadership theory the leader adapts their leadership style based on the situation, which is defined by the employee’s willingness and ability to perform a task. Distributed leadership views the situation as an interaction between leaders and followers and allows for collaboration between them (Spillane, 2006).

The responses on the supervision portion to the DLI are interpreted to suggest that supervision is the most centralized and least distributed of the areas measured. The principals’ responses on the supervision section of the DLI suggest high levels of involvement in summative and formative evaluation of teachers, with formal evaluations occurring less often. The response choices were: always, often, sometimes, or never. Respondents reported always involved in evaluation when evaluation takes place. This suggests the principal is the most influential actor in regard to evaluation, which is congruent with the changes found in the women’s major
leadership scores and previous research regarding teacher supervision. According to Hallinger and Murphy (1985) the supervision of teachers is a leadership function that focuses predominantly on the ability of the principal to direct, control, and monitor teachers. Across the sample, women were more consistent in selecting always for summative evaluation involvement. There were more women who selected responses that indicated they were less involved in formative evaluation of teachers as compared to summative evaluation. The finding likely reflects the mandatory requirements for summative evaluation of teachers common in most school districts. Further, the frequency of involvement in evaluation of staff was reported as often. This is not surprising given the results of previous research that suggests that supervision and evaluation are difficult to distribute and should remain in the domain of one formal leader (Spillane, 2006; Goldstein, 2003).

Responses to the cooperation of the leadership team section of the DLI indicated that the principals perceive there to be high levels of collaboration among leadership team members. The finding of a high level of collaboration supports previous research regarding women’s reported strengths (Kruger, 2008; Shakeshaft, 1987; Young & Skrla, 2003; Curley, 2007). Collaboration/cooperation of the leadership team is characterized by group cohesion, clearly identified roles of team members, and a focus on well articulated common goals. The high scores on the questions specific to individual team member’s capabilities, performance and in acting in the best interest of students and staff indicate high levels trust in the team.

Distribution of leadership is marked by individuals operating in a cooperative and collaborative manner, not just through delegation of tasks. When effective distribution of leadership is present all members pool their expertise and work in an interactive way (Gronn, 2002). When viewed from that perspective, the high scores on the cooperation section of the DLI help explain the finding of a lack of responses to delegating tasks found though the
LEAD Self. The delegating style as defined in situational leadership theory suggests no cooperative effort between the leader and employee.

It is reasonable to assume that with the high levels of cooperation reported on the DLI there would be a higher percentage of women who reported a participating style of leadership through the LEAD Self. However, the assumptions of the leader when using a participating style as described through situational leadership theory is quite different from the notion of cooperative or collaborative leadership as described through a distributed leadership perspective. In distributive leadership theory it is assumed all members of a leadership team will pool their resources and expertise for the common good of the school, which assumes motivation among members of the team. On the contrary, situational leadership theory suggests a participatory style of leadership is necessary when an employee is not motivated or lacks the confidence to complete a task.

The highest mean scores in the support section of the DLI fell in the categories that were related to taking care of teachers. Taking care of teachers was defined as providing support, being available to them, and looking out for their welfare. Additionally, Hulpia, et al. (2010) interpreted support to include motivating and stimulating teachers, tasks that are considered to be easily distributed to other members of the team (Heller & Firestone, 1995; Locke, 2003). The principals responded that they always look after teachers’ welfare, and that they are always available to provide assistance after school and they always encourage, but they indicated that they helped less frequently: they responded that they often help. These results indicate that the principals are available to help, more often than they actually provide help. This finding may be a reflection of the amount of time principals spend at school beyond the school day in other activities. Further, the principals indicated they spend slightly less time in the areas of providing rationale for their feedback to teachers and in reevaluating the vision than on helping. The
finding that women provide feedback, but do not take as much time explaining their rationale is congruent with a more directive style of leadership.

Similar to previous research conducted by Grupton and Slick (1995), principals perceived high levels of involvement in decision making. Additionally, they reported effective communication and delegation all of which are key tenants of distributed leadership practices, with a modal response of agree in all categories. Spillane (2006) refers to participative and distributed practices of decision making and collaboration between leaders and followers as co-leadership. The lowest of the agree scores on the participative decision making section of the DLI was on the response to the statement leadership is broadly distributed among the staff. Interestingly, Short and Rinehart (1992) reported that participation of teachers in decision-making can have negative outcomes such as increasing the potential for conflicts and miscommunication. Conversely, other researchers concluded that leaders and employees making decisions jointly were related to positive organizational outcomes (Knoop, 1995; Marzano et al., 2005). Perhaps the discussion should change from if there should be participative decision making to what decisions should be participative and which decisions should be left solely to the domain of the leader.

Positive school outcomes do seem to be the result of the leadership of the women in the study. Using descriptive statistics it was found that the secondary schools administered by women in Texas have become much larger. The student body is not only larger but has become increasingly challenged (higher poverty) and yet student passing rates have remained at least level. In Texas, campuses that meet the highest measures of performance are rated by the Academic Excellence Indicator System (AEIS) as Exemplary, with decreasing distinction as evident in the labels of Recognized, Academically Acceptable, and Academically Unacceptable. Although there is a larger proportion of campuses that were rated as exemplary in 1998 as
compared to 2011, for the majority of these schools, student outcomes have improved as they are measured or represented overall by the accountability system. The increase in overall achievement (as measured by the accountability passing rate and campus accountability rating) despite higher poverty levels is suggestive of effective strategies being employed. Since the modal response for length of time in the current position was 4-8 years for principals on both the 1998 and 2011 surveys, the campus ratings can be considered to have been achieved, to some degree, due to the skills of their current leadership. This position is stated recognizing the caveat that there remains debate over the relationship of principal leadership with student performance. Marzano et al. (2005) conducted a meta analysis of studies between 1970 to 2004 and found a .25 correlation between principals’ leadership behavior and student achievement. On the contrary, a study by Witziers, Bosket, and Kruger (2003) found almost no relationship between leadership and achievement. Certainly, the findings of the 2011 study provide evidence to suggest that there is room to consider that using a more directive leadership style is a viable strategy, instead of a less effective strategy as previously suggested.

**Implications for Practice**

Perceptions that gender problems have been overcome were not supported via this study. Further, Stainback and Tomaskovic-Devey (2009) stated “white male managerial overrepresentation remains virtually unchanged since 1966” (p. 1). They suggested that white women have benefitted most from affirmative action policies; however the current study found progress for women from ethnic minorities. This finding is consistent with previous research regarding the success of affirmative action policies for some groups (Crosby et al., 2006) and suggests that the policies need to be continued with a renewed emphasis on gender equity to combat what appears to be the persistence of discriminatory hiring practices. While the qualifications of individuals should be the basis for hiring, an awareness of the benefits of
women leaders at the secondary level should be considered. Selection procedures should focus on the competence of individuals to provide leadership that will improve academic outcomes for students. Eagly (2006) reported small leadership differences between men and women, but stated “women, more than men, appear to lead in styles that recommend them for leadership” (p. 5).

Hiring practices that focus on respect for diversity and desirable leadership skills for schools (Logan, 1998) would benefit women leaders who, according to previous researchers, have demonstrated their competency as school leaders (Christman & McClellan, 2008; Curley, 2007; Shakeshaft et al. 1991; Brunner & Grogan 2007).

Women’s styles of leading appear to be conducive to producing effective outcomes in schools and should be incorporated into school leadership preparation programs (Grupton & Slick, 1995). Women are able to adapt their styles based on the needs of the situation to include both supportive and directive behaviors. Additionally, their reported strength of collaboration lends itself to shared and distributed leadership, which has been linked to improved school outcomes (Elmore, 2000; Louis et al., 2010). While the role of the principal cannot be fully replaced by a team, preparation programs should emphasize training that enhances leaders’ abilities to share leadership, collaborate and adapt their leadership to varying situations. Additionally, emphasis should be placed on the sharing of leadership responsibilities to reduce the potential for burn out in administrators who attempt to lead without collaborating and distributing leadership tasks. Further, principal training programs should include discussions regarding which decisions and responsibilities can be shared or delegated and which cannot.

The finding that the number of minority women principals has increased but the number of women in general has not, suggests that social justice should continue to be a focal point for principal training programs. Andrews and Ridenour (2006) propose that the important dimensions of gender equity can be influenced by educational administration curriculums such as
courses in cultural diversity, stereotypes, and gender bias. Additionally, they suggest men and women must be more cognizant of the similarities and differences between genders for the benefit of students. This is especially important for principals who intend to serve students with diverse backgrounds. Principals need to understand and implement policies that create gender and ethnic equity. Finally, administrative training programs should create and support mentoring and networking opportunities for women.

School systems need to implement organizational policies designed to improve women’s access (i.e., mixed gender hiring committees, diversity committees, and a focus on gender and ethnic balance). Equal access in hiring practices for qualified school administrator candidates can be advanced through information and training programs targeted to school board members and administrators involved in the hiring process (Logan, 1998). Furthermore, school systems need to identify the contemporary mechanisms that encourage and discourage gender equity in the workplace. Perceptions of women leaders as outsiders need to be combated (Coleman, 2007). Moreover, women must recognize and acknowledge gender discrimination instead of ignoring or denying it. We have a moral obligation as a society to provide equity. School systems should not only teach social justice they should be the model for it.

Limitations and Delimitations

One notable limitation is that the study relied on self-reported information. Although self-report information allows for the acquisition of information known only to the respondent, the potential for self-report response bias exists. Respondents may have had the tendency to present themselves favorably by trying to match their responses to current literature or situational norms and expectations (Wiersma & Jurs, 2005; Rea & Parker, 2005; Gay & Airasion, 2003). Finally, responses were subject to change, which can jeopardize reliability.
A threat to the findings that is most problematic pertains to the possibility of response bias. One hundred seventeen women were included in the sample. Of the 117 surveys sent out via email, 49 were returned (approximately a 42% return). The low response rate may in part be attributable to the use of email or simple survey fatigue. Because there was the possibility of non-response bias, school data (enrollment, students per teacher, percent low socio-economic status, passing rates, and expenditures per student) provided by TEA were examined to compare respondents to non-responders. Principals who responded appeared to administer schools that enrolled larger numbers of students (i.e., roughly 800 students) as compared to those who were selected (i.e., roughly 700). No other identifiable differences were observed. Therefore, the threat of bias may be less of a risk to the study’s observations and conclusions. Finally, the study was limited to women in the state of Texas.

**Recommendations for Further Study**

Similar studies should be conducted using sample populations outside the state of Texas to determine if the changes found regarding the characteristics of women secondary school principals and their leadership styles are universal. Additionally, it would be interesting to explore the leadership styles and characteristics of men secondary school principals to determine if they have made similar changes with the shifting demands of the job role. Furthermore, a question to be answered is: have minority men made similar progress into leadership positions as women? Another topic worthy of further investigation is whether there is a relationship between principal leadership styles and the poverty level of the schools in which they lead. Finally, more quantitative research regarding distributed leadership and organizational outcomes gathered from the perspectives of the leadership teams and school staff is needed.
Concluding Remarks

Public school systems are under extreme pressure to reform schools in ways that will improve student achievement, close the achievement gap, and reduce dropout rates. The school principals who are responsible for those improvements are expected to operate their complex school organizations effectively and efficiently with limited resources and increased accountability. A growing body of evidence supports the use of distributed leadership practices in order to meet the increasing demands involved in education reform (MacBeath, Oduro, & Waterhouse, 2004; Louis et al., 2010; Marzano et al., 2005). Distributed leadership allows for principals to build the leadership capacity of their teachers in order to share decisions and responsibilities. As described by Spillane (2006), leadership is an interactive process between leaders, followers, and their situation in which collaboration and reciprocal interdependency are fostered. That collaborative relationship allows for the members of the leadership team to change roles and use their expertise as the situations warrant. According to Gronn (2008), both situational awareness and distributed leadership are important in school organizations in order to meet current expectations for sustained educational reform. According to Hersey and Blanchard (1988), situational leadership is the ability of the leader to change his or her leadership behavior based on the situation. The situation is defined by the needs and motives of the leader’s subordinates. The ability of the leader to change based on the situation is described as the leader’s adaptability. Distributed leadership advocates for a more mutually shared relationship between leaders and followers than does situational leadership theory.

The sharing of expertise and leadership as described through distributed leadership theory can be particularly important in large secondary schools, where the number of departments and specialty areas make it virtually impossible for one person to have all the knowledge and expertise necessary to insure high quality learning experiences for every student. Many of the
characteristics of situational and distributed leadership such as the ability to adapt leadership style to various situations, work collaboratively, build relationships, and create positive climates are characteristics often attributed to women leaders (McFarland et al., 1993; Curley, 2007; Christman & McClellan, 2008), yet women continue to be underrepresented in the role of secondary school principal both nationally and internationally (Roser et al., 2009; Moreau et al., 2007; Kaparou & Bush, 2007).

The intent of this study was that learning about the women who are current secondary school principals and how they lead will provide information to guide processes that reduce the underrepresentation of women in administration at the secondary school level. Advancement in the area of gender equity requires continuous effort. We cannot assume that needed changes will take place without unrelenting labors to highlight the associated problems of underrepresentation and a clear focus on potential solutions. Understanding the characteristics and leadership styles of women leaders, the demographics of the schools they lead, and how they have changed over time can positively influence decisions regarding how our systems recruit, train, and hire more highly qualified principals at the secondary school level.

It was also the intent of the study to add to the empirical research studies on the topics of situational and distributed leadership using quantitative measures in response to gaps in the literature, particularly in relation to women secondary school principals. The understanding of the situational and distributed leadership practices of women secondary school principals has practical significance: (a) because women principals often lead high poverty schools in urban settings (National Center for Educational Statistics, 2003) where strong instructional leaders are particularly needed to help narrow the achievement gap, (b) in terms of increasing the pool of principal candidates in order to avoid a principal shortage, and (d) in terms of strengthening the number of effective instructional leaders at the secondary level.
Finally, on a more substantive level, the information from the study has the potential to add to the literature that promotes social change toward the acceptance of more highly skilled women leaders in secondary school principal positions. Creating school leaders who are able to effectively undertake the complex issues surrounding school reform and continuous academic achievement for all students, requires that we continue to challenge long standing norms about how principals lead and what characteristics they should possess.
REFERENCES


APPENDIX A

Women and School Leadership

Dear (name will be filled in automatically),

In spite of the large quantity of evidence available that speaks of women as strong instructional leaders, statistics suggest that over the past decade there has been little increase in the number of women principals at the secondary level. This underrepresentation of women is a national and international phenomenon. For the 2009 school year, only 29% of Texas high school principals were women.

The underrepresentation of women in secondary principal roles has many impacts both organizational and personal. There is a documented shortage of principals, which qualified women could help reduce. Women principals often lead high poverty schools in urban settings where strong instructional leaders are particularly needed; without strong leaders, student achievement suffers. For women, the lack of access to secondary principal positions limits professional goals and advancement to the superintendency, since most superintendent positions are filled from secondary school positions.

I became keenly aware of the scarcity of women principals at the secondary school level in my role as an administrator of secondary education. An interest in the underrepresentation of women in school administration has become a passion to learn more about how current women secondary school principals perceive their work as leaders. Better understanding is needed about their leadership practices and preferences. The purpose of this work is to strengthen schools for achieving academic outcomes for students, enhance preparation of principals, and advance women as school leaders.

Please take a few minutes to fill out the survey, which is accessed through the URL provided. You can click on the link or copy and paste the link into your Internet browser. The survey includes three sections and takes 12-15 minutes to complete. Your responses to these items are very important.

All information you provide is confidential. Your participation is entirely voluntary and you may refuse to answer any question or discontinue participation at any point. There is no personal risk to you in participating in the study. Should you have any further questions or comments, please feel free to contact me at jean_marczynski@wsu.edu. This project was qualified as exempt by the Institutional Review Board at Washington State University (WSU).

I greatly appreciate your time and attention in completing the survey and thank you in advance for responding in this request! Thank you for your help and participation,

Jean Marczynski

Jean Marczynski, Educational Leadership Doctoral Student
Washington State University

C: Dr. Gordon Gates, Dissertation Chairperson
Dear (name will be filled in automatically),

You were recently sent an email asking you to complete a brief survey about your leadership as a secondary school principal. I want to thank you for responding to this request, as your answers will contribute to understanding about school leadership for student achievement, enhancing the preparation and development of principals, and advancing women as school administrators.

If you have not responded, please do so today. The survey takes a brief 12-15 minutes to complete and your input is extremely valuable.

Please click on the link provided to go to the survey website (or copy and paste the survey link into your Internet browser) to begin.

Your responses will be kept confidential. Because the survey was sent to a small but representative sample, it is extremely important that your perceptions be included if the results are to accurately represent current women secondary school principals.

Should you have any further questions or comments, please feel free to contact me at jean_marczynski@wsu.edu

Sincerely,
Jean Marczynski, Educational Leadership Doctoral Student
Washington State University

C: Dr. Gordon Gates, Dissertation Chairperson
Dear (name will be filled in automatically),

You were recently sent an email asking you to complete a brief survey about your leadership as a secondary school principal. Please consider taking few minutes to respond to this request, as your answers are important contributions to the understanding of school leadership for student achievement, enhancing the preparation and development of principals, and advancing women as school administrators. The survey takes a brief 12-15 minutes to complete.

Please click on the link provided to go to the survey website (or copy and paste the survey link into your Internet browser) to begin.

Your responses will be kept confidential. Because the survey was sent to a small but representative sample, it is extremely important that your perceptions be included if the results are to accurately represent current women secondary school principals.

Should you have any further questions or comments, please feel free to contact me at jean_marczynski@wsu.edu

Sincerely,

Jean Marczynski, Educational Leadership Doctoral Student
Washington State University
APPENDIX D

Women and School Leadership

Dear (name will be filled in automatically),

I understand how valuable your time is and fully understand this is a very busy time of year. But I am hoping you may be able to take a few minutes to complete a survey in order to help me collect important information about leadership as a secondary school principal. As of today, I have no record of your responding.

Please click on the link provided to go to the survey website (or copy and paste the survey link into your Internet browser) to begin. Your responses will be kept confidential. No personally identifiable information will be associated with your responses in any reports of these data.

I plan to end gathering data this week, so I wanted to email everyone who has not responded with one more opportunity to participate. The findings of this study will contribute to understanding the preferences and practices of women secondary school principals and their strengths for leading.

Should you have any further questions or comments, please feel free to contact me at jean_marczynski@wsu.edu. Thank you in advance for completing the survey. Your responses are important!

Sincerely,

Jean Marczynski, Educational Leadership Doctoral Student
Washington State University

Dr. Gordon Gates, Dissertation Chairperson
APPENDIX E

Women and School Leadership

Dear (name will be filled in automatically),

I understand how valuable your time is and fully understand this is a very busy time of year. But I am hoping you may be able to take a few minutes to complete a survey in order to help me collect important information about leadership as a secondary school principal. As of today, I have no record of your responding.

Please click on the link provided to go to the survey website (or copy and paste the survey link into your Internet browser) to begin. Your responses will be kept confidential. No personally identifiable information will be associated with your responses in any reports of these data.

This letter serves as the final opportunity for anyone who has not responded to participate in the survey study. The findings of this study will contribute to understanding the preferences and practices of women secondary school principals and their strengths for leading.

Should you have any further questions or comments, please feel free to contact me at jean_marczynski@wsu.edu. Thank you in advance for completing the survey. Your responses are important!

Sincerely,

Jean Marczynski, Educational Leadership Doctoral Student
Washington State University

Dr. Gordon Gates, Dissertation Chairperson
APPENDIX F

Leadership Effectiveness and Adaptability Description (LEAD) Self Instrument

Paul Hersey and Kenneth H. Blanchard

Directions: Assume you are involved in each of the following twelve situations. READ each item carefully and THINK about what you would do in each circumstance. Then choose the letter of the alternative that you think would most closely describe your behavior in the situation. For each situation, think in terms of the environment or situation in which you most often find yourself assuming a leadership role. Say, for example, an item mentions employees -- if you think that you engage in leadership behavior most often as a supervisor, then think about your staff as the employees. Do not change your frame of reference from one item to another

1. Your employees have not been responding to your friendly conversation and obvious concern for their welfare. Their performance is in a tailspin.

A. Emphasize the use of uniform procedures and the necessity for task accomplishment.
B. Make yourself available for discussion, but do not push.
C. Talk with employees, and then set goals.
D. Be careful not to intervene.

2. The observable performance of your group is increasing. You have been making sure that all members are aware of their roles and standards.

A. Be open to more input from the group, but continue to make sure that all members are aware of their roles and standards.
B. Take no definite action.
C. Do what you can to turn more decisions over to the group; they will feel important and involved.
D. Emphasize the importance of deadlines and tasks.

3. Members of your group are unable to solve a problem themselves. You have normally left them alone. Group performance and interpersonal relations have been good.

A. Involve the group and together engage in problem solving.
B. Let the group work it out.
C. Act quickly and firmly to correct and redirect.
D. Encourage the group to work on the problem and be available for discussion.

4. You are considering a major change. Your employees have a fine record of accomplishment. They respect the need for change.

A. Allow group involvement in developing the change, but do not push.
B. Announce changes and then implement them with close supervision.
C. Allow the group to formulate its own direction.
D. Incorporate group recommendations, but direct the change.

5. The performance of your group has been dropping during the last few months. Members have been unconcerned with meeting objectives. They have continually needed reminding to do their tasks on time. Redefining roles has helped in the past.

A. Allow the group to formulate its own direction.
B. Incorporate group recommendations, but see that objectives are met.
C. Redefine goals and supervise carefully.
D. Allow group involvement in setting goals, but do not push.

6. You stepped into an efficiently run situation. The previous leader ran a tight ship. You want to maintain a productive situation, but would like to begin humanizing the environment.

A. Do what you can to make the group feel important and involved.
B. Emphasize the importance of deadlines and tasks.
C. Be careful not to intervene.
D. Get the group involved in decision making, but see that objectives are met.

7. You are considering major changes in your organizational structure. Members of the group have made suggestions about needed change. The group has demonstrated flexibility in its day-to-day operations.

A. Define the change and supervise carefully.
B. Get the group's approval on the change and allow members to organize the implementation.
C. Be willing to make changes as recommended, but maintain control of implementation.
D. Describe the change and let the group decide.
8. Group performance and interpersonal relations are good. You feel somewhat unsure about the lack of direction of the group.

A. Leave the group alone.
B. Discuss the situation with the group and then initiate necessary changes.
C. Take steps to direct your employees toward working in a well-defined manner.
D. Be careful of hurting supervisor-employee relations by being too directive.

9. Your supervisor has appointed you to head a task force that is far overdue in making requested recommendations for change. The group is not clear about its goals. Attendance at sessions has been poor. The meetings have turned into social gatherings. Potentially, the group has the talent necessary to help.

A. Let the group work it out.
B. Incorporate group recommendations, but see that objectives are met.
C. Redefine goals and supervise carefully.
D. Allow group involvement in setting goals, but do not push.

10. Your employees, usually able to take responsibility, are not responding to your recent redefining of standards.

A. Allow group involvement in redefining standards, but do not push.
B. Redefine standards and supervise carefully.
C. Let the group work through the change; do not apply pressure.
D. Incorporate group recommendations, but see that new standards are met.

11. You have been promoted to a new position. The previous supervisor was uninvolved in the affairs of the group. The group has adequately handled its tasks and direction. Group interrelations are good.

A. Take steps to direct employees toward working in a well-defined manner.
B. Involve employees in decision making and reinforce good contributions.
C. Discuss past performance with the group and then examine the need for new practices.
D. Continue to leave the group alone.
12. Recent information indicates some internal difficulties among employees. The group has a remarkable record of accomplishment. Members have effectively maintained long-range goals and have worked in harmony for the past year. All are well-qualified for the task.

A. Try out your solution with employees and examine the need for new practices.

B. Allow group members to work it out themselves.

C. Act quickly and firmly to correct and redirect.

D. Make yourself available for discussion of the problem.
APPENDIX G

Distributed Leadership Inventory

Please choose 1-5, strongly disagree to strongly agree, for the following:

There is a well-functioning leadership team in our school.
The leadership team acts in the best interests of students and staff.
All members of the leadership team support staff in order to achieve the school’s goals.
All members of the leadership team work together on the school’s core objectives.
In our school, the leadership team is composed of people who are highly competent.
Members of the administrative team divide their time appropriately.
Members of the leadership team have clearly defined roles.
Members of the leadership team know which tasks they have to perform.
The leadership team is willing to execute a good idea.
The responsibilities of the leadership team are clear to its members.

Please choose the response that most closely reflects the amount of time you spend on the following – never, sometimes, often, or always.

How frequently do you share your vision of the school?
How often do you re-evaluate the school vision?
How often do you compliment teachers?
How often do you help teachers?
Do you explain your rationale for feedback to teachers?
Are you available after school to assist teachers?
Do you look out for the personal welfare of the teachers?
To what extent do you encourage teachers to pursue goals for their professional learning?
To what extent do you encourage teachers to try new practices consistent with their own interests?
How often do you provide collaborative time for teachers?

How often do you evaluate the performance of the staff?

To what extent are you involved in summative evaluation of teachers?

To what extent are you involved in formative evaluation of teachers?

Please choose 1-5, strongly disagree to strongly agree, for the following:

Leadership is delegated for activities critical for achieving school goals.

Leadership is broadly distributed among the staff.

Teachers have adequate involvement in decision making.

There is an effective committee structure for decision making.

Effective communication among staff is facilitated.

There is an appropriate level of autonomy in decision making.
APPENDIX H

1. My current age is:
   a. 21-30
   b. 31-40
   c. 41-50
   d. 51-60

2. Before I became a school administrator I was a teacher for:
   a. 1-3 years
   b. 4-8 years
   c. 9-15 years
   d. 16-20 years
   e. More than 20 years

3. I have been a school administrator for:
   a. 1-3 years
   b. 4-8 years
   c. 9-15 years
   d. 16-20 years
   e. More than 20 years

4. I have been in my current administrative position for:
   a. 1-3 years
   b. 4-8 years
   c. 9-15 years
   d. 16-20 years
   e. More than 20 years
5. My ethnicity is:
   a. African American
   b. Asian
   c. Anglo European
   d. Latina
   e. Native American

6. Which of the following describes your school’s location:
   a. Urban
   b. Suburban
   c. Rural

7. The highest degree I hold is:
   a. Bachelor’s
   b. Master’s
   c. Specialist
   d. Doctorate