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Roles and responsibilities of local school board members in relation to student achievement

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Roles and responsibilities of local school board members in relation to student achievement

by

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DEDICATION

To my good friend and mentor, Dr. Jim Wolf,

whose lifetime of scholarly inquiry

has been a model and source of inspiration.

His encouragement and gentle nudging were voices in my ear

when it was a challenge to balance responsibilities.

To my husband, Dave,

whose constant loving support and patient understanding

made it possible for me to achieve this goal.

To my graduate school colleague and number one son, Kelly,

who only occasionally reminds me that he finished first.

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ABSTRACT

This research investigated school board members' perceptions about their roles and responsibilities for improving student learning, and examined contextual factors and characteristics that influence those beliefs. The study involved both quantitative and qualitative methods of analysis and the results surfaced several areas that shed light on potential needs for the leadership development of board-superintendent teams.

The research focused on two questions: (a) Which governance roles and responsibilities do board members believe are most important to positively impact student learning? and (b) Do some contextual factors and characteristics have more influence on the board members' beliefs about their roles and responsibilities for improving student learning than others?

Data were collected from an online statewide survey completed by 718 local and regional board members and their top administrators. Additional data sources included: (a) interviews with local school board members and superintendents, (b) school finance data, (c) board member training and tenure data provided by the state school board association, and (e) statewide student achievement data.

The analysis of the data also revealed a particular region in the state wherein board members (a) expressed lower expectations for their roles; (b) placed less importance on specific responsibilities tied closely to improving student achievement; (c) appeared to have a very limited understanding of what is required for systemic change of student learning; (d) participated in less training; and (e) the achievement of students was lower than other parts of the state. In addition, participants revealed: (a) a shared uncertainty and lack of confidence

about the role of the board for improving achievement; (b) a concern about separating their role from the role of district staff; (c) a lack of concern about the school community connection; and (d) a perceived need for educational expertise to make a meaningful contribution in their role as a board member.

The research findings suggest implications for both practice and future research. Attention to these implications and recommendations will contribute to strengthening critical linkages between school governance and the improvement of student achievement in schools.

CHAPTER 1. INTRODUCTION

Statement of the Problem

Raising student achievement is the most important challenge facing local school boards today (National Research Council, 1998). The release of the report, *A Nation at Risk,* in 1983 by the National Commission on Excellence in Education presented a portrait of an educational system in trouble. The report cast doubt on the ability of the United States to compete in a global marketplace and, suddenly, education was seen as something that affected everyone, not just students and parents (Speer, 1998a). While the challenge is clear, the dilemma of how to improve our public schools perplexes most Americans (Rothstein, 1998). A recent synthesis of the findings of sixteen longitudinal studies of significant reform effort lead to the conclusion that efforts to reform education and improve student achievement are largely unsuccessful (Datnow & Stringfield, 2000). Another report indicated there is a widely shared consensus that: (a) student achievement has declined and public school standards have deteriorated; (b) the crisis is especially severe for urban minority youth; (c) schools do not produce graduates with skills necessary for the 21st century economy; and (d) American youth cannot compete with youths in other nations (Rothstein, 1998). With every indictment of public education, the credibility of local public school governance diminishes and criticism of local school boards prevails (Danzberger et al., 1992; Smoley, 1999; Speer, 1998a).

Public dissatisfaction with school boards, which became more vocal in the 1970s and 1980s (Alsbury, 2001a), is now evidenced by calls for improved standards and accountability measures (Danzberger et al., 1992; Sewall, 1996). Since the 1980s, as the credibility of local

school boards has increasingly come into question, school boards have also been experiencing an erosion of power. State and federal regulations have eaten into school board authority, and state governments have become more and more directive (Danzberger et al., 1987; The Education Policy and Leadership Center, 2004a; Todras, 1993) under the belief that the role of local boards is unclear, the board members are ill-prepared for their roles, and very few boards have any process for evaluating or monitoring their work (Danzberger et al., 1987). In other words, just as the public is pointing to local school boards as crucial agents for school improvement; local boards are losing their authority to take action.

Traditionally, school boards have not sought or been encouraged to play an active role in the various facets of student achievement. Generally, boards and superintendents have felt more comfortable leaving instructionally related matters solely in the hands of the professional staff. However, the increasing public demand for accountability for student learning now places emphasis on the responsibility of the board, as a governing body, to create the vision and direction for student learning, to set policy, to provide resources, and then to monitor the results of student achievement initiatives (Henderson et al., 2001a). Unfortunately, the issue of school districts and district quality is rarely the focus of discussions of how to improve public education. The focus has consistently been on the "school" as the unit of change rather than the "district" for which the school board is responsible. With the focus of reform primarily on buildings rather than districts, "local school governance has largely been ignored by these reform efforts" (The Education Policy and Leadership Center, 2004a). District level personnel (central office administrators and school board members) are almost always perceived as an unpredictable and hostile "they" who make ill-informed and unwelcome decisions (Coleman & LaRocque, 1990). The current

status of achievement in public schools, the public cry for accountability, the traditional lack of board involvement in issues related to student achievement, the diminished credibility of school governance, and the educators' lack of confidence in their school governors create an urgent need to clearly understand the role of the board as it relates to improving student learning.

The current knowledge base does not offer much help for meeting this need. To date there does not appear to be a clear direction resulting from disciplined inquiry regarding the practice of school boards or the governance actions which have the biggest impact on behaviors of educators within the school system related to their efforts to improve achievement. The literature on school boards offers theoretical considerations about the purposes, characteristics, limitations, and problems of school boards, as well as countless "how-to" manuals filled with advice for effective boardsmanship, but school boards have seldom been the focus of empirical research related to their role for improving student achievement (Bracey & Resnick, 1998; Henderson et al., 2001a; Land, 2002; Resnick, 1999; Smoley, 1999; Speer, 1998a). Researchers have examined relationships between boards and their superintendents, but they have not yet studied relationships between board members or between boards and their various publics or how those relationships translate into actions for improved achievement (Goodman et al., 1997b; Horn, 1996). At the same time, school boards are becoming increasingly concerned with questions of student achievement (Hess, 2002; Iowa Association of School Boards, 2003). The recent study by Hess (2002) indicated that board members' concerns with achievement have risen substantially in the last few years, and yet the school board is not in a position to develop curriculum or create initiatives for school improvement. What school boards can do, however, is create the conditions within

the system where these efforts can succeed, protect the school improvement work from fragmentation, and guide the actions of educators within the system by clearly communicating district priorities (Joyce et al., 2001), the "primary and essential goals that should stand as measures of success" (Glickman, 1993). A better understanding of how board members establish effective district priorities, how district priorities are influenced by the attitudes and beliefs of the board members, and what board actions will most likely result in shared commitment to district priorities for student learning is a critical need in the educational literature.

Purpose and Research Questions of the Study

The purpose of this study was to continue the examination of board members perceptions about their roles and responsibilities for improving student learning (Delagardelle & Maxson, 2004), and examine the influence certain contextual factors and characteristics of board members may have upon those beliefs in relation to the achievement of students in schools. The results of this study might be able to offer preliminary impressions related to the following research questions:

1. Which governance roles and responsibilities do board members perceive are most important for positively impacting student learning in their school districts?
2. Do some contextual factors and characteristics have more influence on the board members' beliefs about their roles and responsibilities for improving student learning than others?

Theoretical Frameworks

This study extends upon the Decision Output Theory of Wirt and Kirst (1982) by expanding the definition of "outputs" to include the academic achievement of students in schools and testing the model from the assumption of slightly different linkages. Wirt and Kirst examined the relationship between inputs and outputs of the policy-making process and argued that subsystems of the social environment place demands on the system (inputs) which impact decisions about schooling (outputs) and then feed back values into the system (Figure 1). Their interest in the democratic nature of this process led them to conclude the process was ineffective because there would always be a gap between the demands placed on the system and the availability of resources to meet the demands.

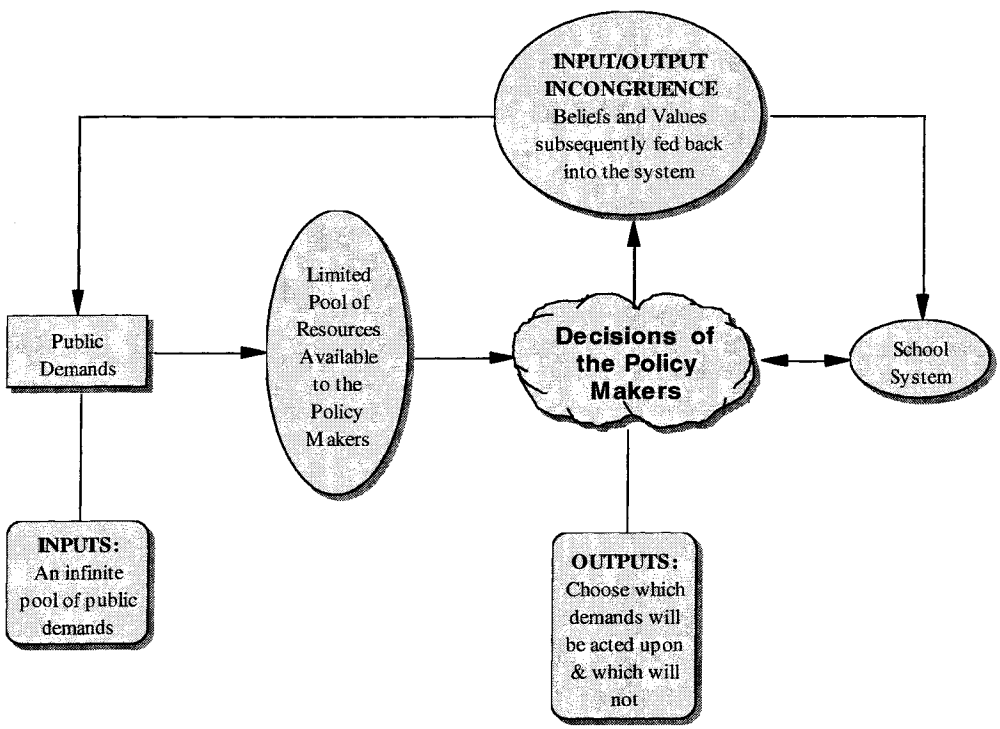

Figure 1. Key linkages in Decision Output Theory (Wirt & Kirst, 1982)

While the ideas presented by Wirst and Kirst (1982) seem logical, infinite public demands placed upon the school system and limited resources to meet the public demands, this researcher attempts to reframe the theory by making new assumptions about the key linkages in the model. The current public outcry for improved student performance indicates that the social environment places a high value on the achievement of students in their public schools. This shared expectation suggests it is reasonable to limit the look at input demands to the expectation of improved achievement and extend the definition of outputs to include the improved performance of students. From this perspective, disciplined inquiry should be able to test key linkages in the congruence between inputs and outputs by examining the contextual factors and characteristics that influence board members' beliefs about their roles for improving achievement, which can be logically assumed to influence their actions/decisions at the board table, which then have been shown to impact school cultures in ways that impact the achievement of students, which then may influence the values/beliefs in the system and the environment (Figure 2).

This study was also built upon numerous other studies (Ainley & McKenzie, 2000; Alsbury, 2004; Brown et al., 1985; Campbell et al., 1965; Greene, 1990; Hofman, 1995; Kerr, 1964; Kirst, 1994, 2002; Lutz, 1980; Parelius, 1982; Steltzer, 1974; Wirt & Christovich, 1989; Wirt & Kirst, 1982) that have provided evidence of the impact of various contextual factors and characteristics on the beliefs and behaviors of board members. This focused scaffolding was accomplished by examining which factors may be influencing board members' beliefs about their accountability role for improving student learning and set the stage for examining these beliefs and factors in relation to the learning outcomes of students.

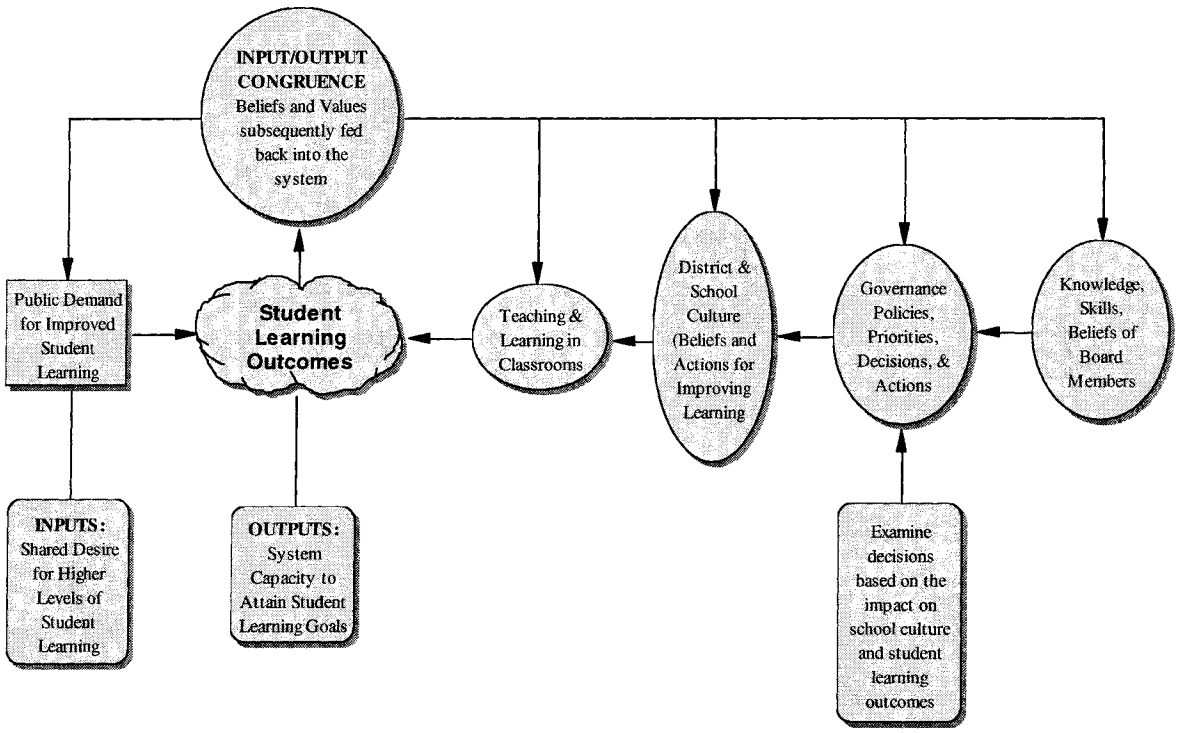

Figure 2. Key linkages in a revised Decision-Output Model

Limitations of the Study

Several factors placed limitations on the results of this study. The sample of board members was limited by the fact that it only included board members from one Midwestern state. It was further limited by narrowing the participant pool to board members with significant differences in their beliefs about their roles and responsibilities for student learning.

Another limiting factor was that the study was based upon information gathered at specific points in time rather than studying board members longitudinally to gather data about their behaviors and beliefs over a number of years. Further, the initial survey forced board members to indicate the importance of pre-selected governance behaviors rather than

asking open-ended questions about what they believe to be important roles for improving student learning. While more efficient for summarizing large amounts of information, this approach failed to ascertain whether or not board members would have mentioned any or all of those behaviors if they had not seen them as forced choice items on the survey.

Another limitation was the limited availability of comprehensive, longitudinal data regarding the achievement of students in the schools that would enable rigorous statistical studies of achievement in relation to differences in beliefs and contextual factors. Since only limited information was available from the state that enabled achievement comparisons with other school districts, the study was limited by the availability of and access to the achievement data.

Significance of the Study

This study has the potential to contribute to the line of inquiry in educational research on school governance from multiple perspectives. From a theoretical perspective, it contributes information to the existing body of knowledge about key linkages in a process that begins with contextual factors and characteristics that may influence board members' beliefs about their roles and responsibilities for student learning, the actions and decisions of those board members, the impact of those actions and decisions on student learning, and the resulting values and beliefs which place new/different demands on the system. The study also adds knowledge to the theories of representation because the narrow focus on governance roles for improving student achievement is inherently responsive to a community expectation for an educated citizenry.

On a substantive level, very little information exists about the roles and responsibilities of board members that is specifically related to improving student achievement. In addition, much of the information that does exist about the role of local school governors has been collected from superintendents. This study adds information from board members themselves about their roles for improving student learning as well as what influences their beliefs and actions in this domain.

On a practical level, this study examined the link between contextual factors and characteristics, and the beliefs and actions of local board members relative to student learning as well as ascertained the link between the beliefs and actions of board members with the learning of students in the schools they govern. If these linkages were established, then the results of this study have significant implications for the development of board members serving on local boards across the country. School boards have been charged with ensuring the improvement of student learning in our nation's public schools but most state school board associations, the organizations assuming primary responsibility for the development of board members in each state, do not address board learning needs for improving student achievement in their strategic plans (Fielding, 2006). Adding knowledge in this area could provide necessary content for board and superintendent development and subsequently improve board/superintendent team effectiveness at leading the improvement efforts in their school districts.

Study Methods

The research questions put forth in this study required the integration of both qualitative and quantitative data collection and analysis techniques in sequential phases. This

mixed methods approach provides an opportunity to address research questions that either methodology cannot address in isolation (Tashakkori & Teddlie, 2003). Phase I of the study consisted of a study of the beliefs of board members about the importance of certain board behaviors for improving achievement, and a study of the variability in those beliefs that can be predicted by the role of the participant. This phase of the study used quantitative analysis methods to address the first research question regarding the governance roles and responsibilities board members believe are most important.

Phase II of the study is comprised of two parts. Phase II – Part 1 consists of quantitative analysis methods to address the second research question regarding which factors may be influencing board members' beliefs about their roles and responsibilities for improving student learning. This part of the study extends upon a recent statewide survey (Delagardelle & Maxson, 2004) and provides analysis of additional variables and relationships from this data base of information.

Phase II – Part 2 is comprised of a qualitative study of two boards identified from the database with significant differences in beliefs about the importance of specific board behaviors that can be explained, in part, by one or more of the variables tested in Phase II - Part 1. Individual interviews with board members from the selected districts also addressed the second research question related to the external factors that influence board members' beliefs about their roles and responsibilities and may, therefore, influence their actions at the board table during the decision making process. Qualitative methods of analysis were used to analyze the data from the semi-structured interviews and describe the influences on board member beliefs and actions. A line-by-line, open coding process was used to identify emergent themes which were categorized inductively into working themes, and verified by

the researcher and the participants. The resulting explanatory framework was used to describe the influencing factors in more detail than can be described or understood from the quantitative data analysis alone.

The results of each phase of this study were aggregated and applied to logically consider key linkages in the congruence between inputs and outputs by examining board members' beliefs about their role for improving student learning, the contextual factors and characteristics that may be influencing their beliefs about their roles for improving achievement and, ultimately, (beyond the scope of this study) how those beliefs influence their actions/decisions at the board table and the achievement of students in their schools. These linkages may provide a logical argument for extending the current definition of outputs supported by Wirt and Kirst (1982) in their Decision Output Theory which is described in more detail in the next chapter.

Summary

This introductory chapter has provided an overview of the study by illustrating critical issues related to the roles and responsibilities of local school boards in relation to improving student learning. It provided information about the purpose of the study, including the theoretical frameworks along with the limitations and significance of the study, and briefly explained the overall research methodology and data analysis methods that were used. Chapter 2 provides a review of the literature relevant to this study with more detailed explanations of the existing theories about school board governance that formed the foundation of the study and provided a scaffolding for this research.

CHAPTER 2. LITERATURE REVIEW

Introduction

This chapter provides a review of the literature regarding the roles and responsibilities of local school boards from various perspectives. It begins with an overview of public education and local school governance as important elements in a democratic society, contrasted by the third section which illustrates the long standing confusion about what the specific roles and responsibilities of local school governors ought to be. In order to better understand why this confusion exists and persists over time, the fourth section traces the history of school boards from their origin, through their transformation from an administrative body to a legislative body, through subsequent efforts to depoliticize local boards, and finally through the loss of public confidence in the ability of school boards to effectively govern public schools and a desire to return to more community control. This section concludes with the argument that two specific sequences in this evolution of school governance have contributed significantly to the persistent role ambiguity that exists today.

The fifth section examines various theoretical models that have begun to emerge related to the roles and responsibilities of school board members. The dichotomous views of representation are presented first followed by three theoretical models from the social and political sciences. These models provide a framework for explaining the purpose of this study and its relevance for adding knowledge to the field of educational governance in the final sections which include the purpose of the study, the specific research questions and a summary review of the chapter content.

As the researcher and author of this study, I have a responsibility to announce my bias regarding local school governance. My experiences during a decade of service as a local school board member, over 25 years as a professional educator and administrator in public schools, nearly a decade of service in a state school board association, and the past seven years as a researcher of school governance has influenced my beliefs. These experiences shaped my beliefs about the critical need for public schools to ensure higher levels of learning for all students, my belief in the importance of local school boards and their potential to positively impact these district outcomes, and my commitment to contributing knowledge that can help local governors continuously improve their governance of America's public schools and, therefore, improve the learning of America's children. This intense commitment to adding knowledge that will, ultimately, benefit school governors and the outcomes for students is also what helped me discipline myself to approach this study and the work of others with an objective eye. It is in this vein that I share this review of the literature and the current study of the contextual factors and characteristics that influence board members' beliefs and actions as they govern our local school districts.

Public Education and Local School Governance

From the beginning, the essential value of the public school in a democracy was to "ensure an educated citizenry capable of participating in discussions, debates, and decisions to further the wellness of the larger community and protect the individual right to life, liberty, and the pursuit of happiness" (Glickman, 1993, p. 8). An educated citizenry and a democracy were one and the same, and the lack of one would imperil the other (Glickman). Barber (2001) explained that education is the enabler of a democracy. "Aristocrats condemn

democracy because they believe it subjects the wise to the rule of the foolish, but the aim of democratic education is, in fact, to subject the foolish to wisdom in order that they may both govern themselves and govern wisely" (p. 13). Public education is education for citizenship. In aristocratic nations or in elitist regimes, education may appear as a luxury, but in democracies, "education is the indispensable concomitant of citizenship" (p. 20). Honoring the treaty between the public and their schools and delivering on this promise of public education requires consistent evidence of high and equitable achievement among the students in public schools.

In what has become an American tradition, school boards comprised of elected officials are the guardians of, and policy makers for, our nation's schools, and they are responsible for delivering on the promise of public education. Local school boards have been an integral part of the history of American public education. Across the nation, there are approximately 15,000 local school boards and 95,000 local school board members of which approximately 96% are elected by their communities (Resnick, 1999). These local school boards provide the means by which segments in each community have a representative voice in how schools will educate their children. School board members, as elected officials, view their accountability and responsiveness to the community in a manner that the local staff cannot do. The perspective of the citizen school board member adds a dimension of stewardship to the system. In principle, school boards provide public credibility, stewardship, and direction to local education, but the ultimate issue, however, is whether school boards in practice are effective bodies for leading local education improvement for improved student learning (Resnick, 1999). While there are different views regarding the primary purpose of school boards (Campbell & Greene, 1994; Eadie, 2003; Kowalski, 2006; Sarason, 1997;

Schlechty, 1992; Simon, 1986), most agree that the primary purpose is related to the teaching and learning of America's youth and that school governors should establish coherent, attainable outcomes that reflect the community vision for education in a democracy (Campbell & Greene, 1994; Kowalski, 2006).

According to the Twentieth Century Fund (1992), local public school boards have been "the distinctive hallmark of American education for more than one hundred fifty years" (p. 17). In recent decades, however, school boards have been the target of criticism by those who perceive them as outdated and incapable of effectively leading educational reforms to improve students' academic achievement, particularly in urban areas (Carol et al., 1986; Danzberger et al., 1987; Danzberger et al., 1992; The Twentieth Century Fund/Danforth Foundation, 1992). Even as the present research was being conducted, the national headlines were riddled with stories about school districts in trouble, and local school boards blamed for the inadequacies in public education. Years of fiscal incompetence, corruption, and neglect have resulted in the New Orleans public school system being officially declared "broke" (Thevenot, 2005), and the first State Board of Education is taking over the daily operations of Arizona's "failing" schools by removing principals, replacing teachers, and even reorganizing districts (Kossan, 2005). In Florida, at the request of the state Board of Education, four private firms were formally vying to take over the state's most troubled and "chronically failing" public schools (Harrison, 2005) .

Despite the long-standing presence of local school boards in public education and the more recent concerns about the effectiveness of locally elected governing boards, there are very few data-driven studies of the effectiveness of school boards that can inform the discussion of what role they should have in school improvement for improved student

learning. Rather, opinion-based writings on the overall role of the school board as well as the role of the board in relation to student achievement dominate the literature and, at best, only prescribe general categories of board behavior for effective boardsmanship rather than agreed upon specific criteria for judging the effectiveness of school board governance.

School Boards

Role

Traditionally, local school boards believed their role to be supportive in nature: approving the budget, dealing with constituents, generating revenue, and keeping the public "at bay" around politically sensitive issues. While these are still typical functions, the challenge of improving student achievement suggests the need for a more dynamic leadership role for local school boards. A joint publication of the Iowa Association of School Boards and The Iowa State Board of Education (1994) suggested a leadership model for school boards based on four main functions: (a) vision, (b) structure, (c) accountability, and (d) advocacy. In his report on Effective School Governance, Michael Resnick (1999) extended upon these functions and identified ten fundamentals of good board operations: (a) setting the vision, (b) focusing on student achievement, (c) providing a structure for success, (d) advocating for education, (e) involving the community, (f) accounting for results, (g) empowering the staff, (h) setting policy, (i) collaborating with other agencies, and (j) committing to continuous improvement. These fundamental operations are consistent with other models that have attempted to describe school board functions for more effective board leadership (Danzberger et al., 1992; R. H. Goodman et al., 1997b; Henderson et al., 2001a; Horn, 1996; Land, 2002; Resnick, 1999; Smoley, 1999). However, even though there are a

significant number of proposals for school board reforms based on the role and responsibilities of school boards, school board operations have remained stable and the outcomes of schooling (student achievement results) have not improved (Grissmer et al., 2000).

Studies of school boards through the eyes of the superintendent

Several research efforts surfacing in the 1960s and 1970s and continuing to the present have focused on the relationship between the superintendent and the school board and asked questions related to who controls whom. Several early studies (Kerr, 1964; Smith, 1974) confirmed that boards deferred to the judgments and values of the school professionals and, therefore, were controlled by them. Other studies during this time (Cistone, 1976, 1977) challenged these results and provided evidence that board members, over the course of their tenure, reported a decreasing expectation in the administrative role related to the division of labor and responsibility between the board the superintendent. An even different twist on the control issue surfaced with the publication of the Zeigler and Jennings (1974) study, *Governing American Schools.* Their inquiry into the interaction between the school board and the superintendent as a measure of the democratic principles playing out in school governance concluded that board opposition to the superintendent and board dependence on the superintendent for educational information varied significantly depending upon the size of the school district.

Numerous other studies have looked at the relationship between the board and the superintendent to shed light on the function and effectiveness of school boards. Glass, Bjork, and Brunner (2000) surveyed more than 2,000 randomly selected superintendents and

indicated that an overwhelming majority of school board evaluations of their superintendents (>90%) rated their performance as excellent or good; whereas superintendents gave the board members a much lower "grade" related to their performance, and indicated that board turnover and community pressure are significant stressors in their job. Grady and Bryant (1991) surveyed 80 Nebraska superintendents and found that "critical incidents" between these superintendents and their board members irreparably damaged their professional relationships. Incidents related to board members' immediate family and friends as well as role confusion between the board and superintendent were cited as most damaging to their ability to work together. The results of these studies tended to provide more information about what boards should *not* do than information about what would make boards more effective, as in a report by Kowalski (2006) of the most common criticisms of board members expressed by superintendents. These criticisms included: pursuing single issues, pursuing personal gain, rejecting the professional status of the superintendent, satisfying a need for power, failing to maintain confidentiality, intruding into administration, and not being adequately prepared to serve on the board. Similarly, an issue paper published by the Education Commission of the States (Glass, 2001), that shared the results of a survey of 267 superintendents judged nationally by their peers to be outstanding, concluded that superintendent leaders are clearly displeased with the current board governance model but fell short of ascertaining what actions superintendents think are needed to restructure school board governance. A recent study of board member and superintendent beliefs about the role of the local school board (Delagardelle & Maxson, 2004) also found that board members had higher expectations of themselves in relation to their roles and responsibilities than the superintendents had for their board members. However, in other studies (Danzberger et al.,

1992) it was the board members who expressed a belief that local boards are not functioning well as policy bodies.

The studies mentioned previously, along with many others exploring the relationship between the school board and the superintendent as a means to clarify the roles and responsibilities between the two, have had limited success in setting a clear direction. As a result of the controversy over the role of school boards, especially in relation to the role of the superintendent, and the fact that public confidence in local governance had been increasingly deteriorating during the second half of the 20th century, many commissioned reports and task forces began offering suggestions regarding how school boards should function.

Major reports describing the roles and responsibilities of school boards

Following the 1983 publication of the report *A Nation at Risk* (Gardner, 1983), several national reports (Boyer, 1983; Carnegie Forum on Education and the Economy, 1986; Carol et al., 1986; Peterson, 1983) expressed concern about the ability of school board leadership to effectively govern American schools. In 1992, two national reports (Danzberger, 1992; Danzberger et al., 1992) followed by others (Committee for Economic Development, 1994; Education Commission of the States, 1999; Goodman & Zimmerman, 2003; Hess, 2002; Resnick & Seamon, 1999; The Education Policy and Leadership Center, 2004b; Ziebarth, 1999) recommended sweeping changes in the ways school boards are organized and operate. The 1992 reports and the reports that followed recommended changes in multiple areas of board governance: curriculum and learning, policy, relationships with the superintendent, budget and resources, limiting the responsibilities of the board, the board's

connection with the larger community, how elections are held, board training and evaluation, pay for board members, and the role of the board in collective bargaining. While most of these reports recommended changes in the current model of board governance, some (Danzberger, 1992; Danzberger et al., 1992) expressed little confidence that boards could reform themselves and recommended alternative models to local governance.

In response to the growing controversy over the role of school boards, the National School Boards Association (NSBA) formed a task force, chaired by the executive director of the California School Boards Association, to develop a description of the responsibilities of local school boards. Based on the premise that there are core, fundamental functions the board must fulfill, the task force issued a report (Campbell & Greene, 1994) describing the responsibilities as:

1. Establishing a vision
2. Establishing an organizational structure
3. Establishing systems of accountability to the community
4. Advocating on behalf of children and public education

In their report, Campbell and Greene further described a project of the California School Boards Association (CSBA) that resulted in more detailed definitions of the various jobs of school boards. The CSBA expanded the four basic board roles defined by the NSBA task force into seven categories of responsibilities and eight characteristics of effective governance behaviors (see Table 2.1).

The flurry of reports, most expressing opinion rather than empirical evidence, regarding the roles and responsibilities of school boards did little to resolve the uncertainty

Table 2.1. Core responsibilities and governance behaviors

Board Responsibilities	Board Governance Behaviors
Critical board responsibilities include: 1. Vision and climate for excellence 2. Superintendent appointment 3. Budget adoption and fiscal accountability 4. Curriculum development and program accountability 5. Governance and policy 6. Collective bargaining 7. Advocacy	*Effective board members:* 1. Understand their duties and their role of providing leadership to ensure the quality of education 2. Understand the importance of teamwork and that their only authority is as a governance team 3. Adopt a positive attitude in the conduct of their business 4. Understand, appreciate, and respect the role of the superintendent 5. Establish an environment of trust within the board and the district 6. Understand the importance of open and honest communication 7. Carry out their responsibilities with a high level of professionalism 8. Operate with fairness, firmness, stability, and consistency.

about the ideal role of these officeholders. In addition to suggestions about how boards should function, authors looked at the characteristics of board members, themselves, and suggested that personal characteristics as well as the values and beliefs of board members may have implications for how they perform as board members.

Values and beliefs of board members

In his book, *Rethinking leadership*, Sergiovanni (1999), added a new dimension to previous theories about the role and responsibilities of school leadership which had important implications for school boards. His focus on servant leadership revealed that the most important responsibility of leadership is to give a sense of direction to establish an overarching purpose. To be successful in providing purpose requires the trust of others. In

order to trust, those who are led must have confidence in the leaders' competence and values, and they must have confidence that the leaders make judgments on the basis of competence and values, rather than self-interest. Based on Sergiovanni's work, school board members as servant leaders must be constantly engaging in "purposing" or inducing clarity, consensus, and commitment regarding the organization's basic purposes. These basic purposes are, as a rule, value based. The eye of the target, whether the target is "student learning" or something else, reflects the core values and beliefs of the school leaders.

These core values and beliefs constitute what some authors refer to as a school district "ethos." Ethos is defined by Coleman and LaRocque (1990) as consisting of educational values and attitudes held in common amongst educators in a school district (norms). Ethos in action consists of a set of characteristic ways in which important tasks are attended to in the school district (practices). These norms and practices together constitute a district ethos. Further, the norms and practices (the ethos) are shaped largely by the beliefs and actions of the leaders. This focus on the importance of district ethos and the significant role of the school leaders in influencing the norms and practices of the organization is also discussed by Elmore (1996) in his classic article on scaling-up good educational practice. Elmore stated that moving beyond pockets of excellence to reach a much greater proportion of students will depend upon developing strong normative structures for practice as well as formal and informal ways of communicating norms of good practice.

A few studies have observed a relationship between the district ethos and student achievement. In a study based on working with his colleagues at a group of schools in a socially disadvantaged area of London, Rutter (1979) found that there were significant differences between these schools in their impact on the lives of students, and that these

differences were not related to such cost factors as building quality or class size, but were related to the characteristics of the schools as social institutions. These characteristics, such as academic emphasis, teacher actions in classrooms, incentives, and pupil self reliance, constitute ethos—a set of values, attitudes and behaviors that are characteristic of the school as a whole . The Rutter team found that school ethos was positively associated with pupil behavior, attendance, retention in school, achievement, and delinquency rates.

Webber (1995) surveyed 136 school board members in Canada regarding their perceptions of the educational issues that would be of highest priority in the future. The top priorities identified were: finance, student behavior, quality assurance, and employment preparation for students. A second analysis of the surveys identified nine themes from the predicted concerns of the school board members: educational governance, accountability to the public, program delivery models, societal change, school security, educational welfare, educational finance, teacher development, and curriculum content. The identified priorities and the nine themes were then used to infer a generalized belief structure that may form the basis for future board decisions. If the inference was reasonable, Webber concluded that the board members acting on these beliefs would be ill-equipped to deal with the demands being placed on school board members and education in general but would be reluctant to see their power in education diminished. Given the bleak financial picture facing most school boards, this would most likely lead to school boards becoming increasingly politicized. Webber recognized that the inferences drawn may not actually play out as suggested. However, he emphasized the importance of understanding the beliefs and values that influence decision makers.

LaRocque and Coleman (1993) examined the role of school boards in the implementation of policy and the development of a positive ethos in nine school districts in British Columbia. A positive district ethos was associated with higher than expected student achievement and lower than expected costs over a five-year period. The more successful school boards were found to be considerably more knowledgeable about district programs and practices, to have a clearer sense of what they wanted to accomplish based on a set of clear values and beliefs, and engaged in activities that provided them with opportunities to articulate and discuss these values and beliefs with educators in the district.

The Iowa Association of School Boards (IASB) conducted an ethnographic study of school districts with a history of exceptionally high and exceptionally low student achievement (Joyce et al., 2001). Even though the districts were similar in many ways (socio-economic level of the students, education level of the staff, regionality of the staff, board/superintendent relationships, etc.), they were profoundly different in relation to student outcomes, the beliefs and attitudes of the school board and staff, and the presence of seven conditions for productive change. A more recent survey by the IASB asked a random sample of Iowa school board members to respond to questions about their values and beliefs related to student achievement (Iowa Association of School Boards, 2002). One of the more interesting findings from the survey indicated that only 15% of Iowa school board members believed that 90% or more of their students can be expected to master grade level material despite convincing evidence that only 2-4% of U.S. students have intractable learning difficulties that would keep them from learning to read and write successfully.

These studies provide evidence that the values and beliefs of board members may influence how they function as local officials but they do not add knowledge about what

functions are most important for school boards to perform. After more than 200 years in existence, it would be reasonable to expect that specific elements of a local governing board's role would be clearly defined. In fact, if American democracy is dependent on citizen governance, then a consensus should exist on the proper role for these boards. However, other than simplistic references to "policy" versus "administration," no such consensus exists about what they ought to do (Campbell & Greene, 1994). A review of the evolution of local school boards over the past two centuries provides some insight as to why this shared agreement about the roles and responsibilities of school boards has been difficult to attain.

History

Local control of schools has been a cherished tradition since the beginning of public schools, with many of the forces that produced the local school boards of today apparent in the history of our country through our relentless desire for a representative government. The roots of local control of public schools by lay people can be traced back to the town meetings of the New England settlements and to the resolve of the pioneers and householders at that time to establish schools that would educate the citizens (Carol et al., 1986). "Schooling was among the settlers' first concerns, after food, safety, and religion" (Amundson et al., 1996, p. ix). However, even though the commitment of the American people to the idea of lay control of public schools has been extensively documented over two centuries, there continues to be widespread confusion about the role the local school board should play and the specific responsibilities it should assume in the educational system (Amundson et al., 1996). In order to understand this long standing uncertainty and lack of agreement regarding these roles and responsibilities, it is important to understand several key events in the evolution of local

school governance and to consider the impact these events may have had on the perceptions of how school boards should function. The transformation of school boards from an administrative body to a legislative body with the origination of school superintendent positions and the disengagement of school boards from general government in an effort to "depoliticize" boards have had a lasting effect on the opinions about the school board's primary role and contributed to the confusion that is exacerbated today as lay boards are being held accountable for the achievement of students in their schools.

Origin

The first law requiring children to study Latin, Greek literature, and the Bible was passed in Massachusetts in 1642. Soon after, the General Court of the Massachusetts Bay Colony decreed that every town of 50 families or more should have an elementary school, and that every town of 100 families should have a Latin school (Applied Research Center, 1998). The goal of this Massachusetts Law of 1647 was to ensure that children learned to read the Bible, to secure a "God-fearing" community, and to promote the welfare of the state by producing citizens capable of self-governance (Nikolai, 1999). The control of these new schools was vested in representatives of the people called selectmen. The selectmen were town officials responsible for administering many aspects of life in the community who then took on the additional job of running the schools (Amundson et al., 1996; The Twentieth Century Fund & Danforth Foundation, 1992). As populations grew and the administrative demands of the schools increased, the selectmen appointed committees to assume these responsibilities for them. These early school committees were the first examples of school board governance by local officials.

The committees assumed the responsibility for administering the schools in their charge, which included: locating a place to hold classes, finding a literate adult to become the schoolmaster, providing food and lodging for the schoolmaster, keeping the schoolhouse in repair, establishing rules of conduct, rewarding competent schoolmasters, removing incompetent school masters, seeking out parents who failed to send their children to school, and, most importantly, regularly visiting the school to examine the students' progress and to "admonish both teacher and pupils to be faithful to their tasks" (Amundson et al., 1996, p. ix). The responsibilities exercised by these early school committees can be easily linked to the responsibilities of today's school boards: policy, planning, supervision, assessment, personnel evaluation, textbook adoption, plant maintenance, and community relations. Although the work was hard and the committees occasionally encountered resistance from colonists who neither welcomed the schools nor rushed to their support (Amundson et al., 1996), they carried on with determination and became the template for the local governance of public schools that we know today.

This idea of lay control of public schools embodied several important American values: representative governance, keeping the schools close to the people, and keeping the people close to their schools (Amundson et al., 1996). For this reason, lay control of schools, through a committee of representatives from the community, spread easily from the New England colonies across the rest of the country during the 18th and 19th centuries. By 1779, Thomas Jefferson presented the first comprehensive plan for a state school system and, soon after, the first laws were passed requiring school committees to be elected by the people (Alsbury, 2001b). The subsequent implementation of a system of electing school board

representatives by wards ensured a political group that would be representative of the communities' growing population (Nikolai, 1999).

Transformation from an administrative role to a legislative role

Until the middle of the 19th century, school boards administered the schools in their charge, with each board member undertaking responsibility for specific school tasks. However, as the diversity within the communities increased and the number of students enrolled in the schools grew significantly, the administrative job of running the schools became increasingly complex and beyond the accessibility of the board members. As early as 1820, a few boards began retaining clerks to assist them with the day-to-day operations of the school and the position of the superintendent grew out of this practice, with the first official superintendent hired in Buffalo, New York, in 1837 (Kowalski, 2006). Even though the superintendent position had become much more common by the last half of the 19th century, board members restricted their role and status, and relegated only routine tasks with very little authority. This effort to limit the authority of the superintendent continued into the early years of the next century (Kowalski, 2006), but the role of the board became much more legislative and much less administrative with its primary function evolving into setting policy guidelines and acting as watchdogs over their administration (Wirt & Christovich, 1989; Wirt & Kirst, 1982). This assumption of a legislative function continued to present-day but was additionally fragmented in the 20th century as state and federal governments increased their control of local schools and as professional educators' unions gained increased power. Although the assumption of a legislative function has persisted, board members have

continued to spend the bulk of their time on managerial details (Wirt & Kirst, 1982) and negotiate their role in relation to the role of their chief executive officer, the superintendent.

Efforts to depoliticize local school boards

One school board for every school was adequate for small settlements and ensured the close connection between the citizens and their schools. However, as the settlements grew into towns and towns became cities, the number of schools that were needed increased significantly and the population they served became increasingly complex and diverse, particularly in the urban areas where newly arrived immigrants, factory workers, and industry magnates tended to settle (The Twentieth Century Fund & Danforth Foundation, 1992). As the populations grew, one town might have as many as six school boards and the school boards in cities might have as many as 20 members (Amundson et al., 1996). In 1893, there were more than 603 school board members in 28 cities with populations of 100,000 or more (The Twentieth Century Fund & Danforth Foundation, 1992; Wirt & Kirst, 1982). By 1905, Philadelphia alone had 43 elected school boards and 559 board members (Amundson et al., 1996).

By the late 1800s populations had continued to grow, and the idea of separate school districts had been born, and the ward-based, decentralized committee system of school governance had become increasingly chaotic and inefficient, especially in the urban areas. Reformers at the turn of the century contended that the executive authority of school boards was becoming excessively splintered by the numerous subcommittees necessary to administer the schools, and claimed that better management of the schools would be dependent upon the centralization of power in a chief executive who would have delegated

authority from the school board (Wirt & Kirst, 1982). These reformers also contended that board members, elected by wards, tended to advance their own special interests at the expense of the school district as a whole. This perception led the reformers to push for citywide elections of school board members to replace the ward-based elections that were prominent during the 19th century (Wirt & Kirst, 1982).

In addition, by the late 1800s, when municipalities were at a peak of volatile partisan politics, school boards were caught in the center of the political debates due to their close ties to the municipal political structures. A growing belief that education should be divorced from the politics rooted in the late 19th century municipal corruption led to the formal separation of the governance of the Chicago schools from the Common Council of the city of Chicago by the Illinois General Assembly in 1872 (Carol et al., 1986). A movement toward this type of separation of educational governance from general local government began to spread across the country but was not fully achieved until early in the 20th century.

As a result, both separation and consolidation marked the educational reform of school governance at the turn of the century; separation of school governance from local government and the consolidation of multiple boards within a town or city into one board, elected at large, with one superintendent reporting to them. By 1910, the "watchwords of reform were centralization, expertise, professionalism, nonpolitical control, and efficiency" (Wirt & Kirst, 1982) (p. 4). This shift from multiple boards or committees chosen via partisan elections to small, central school boards selected through district-wide, nonpartisan elections marked a significant shift in school board control. According to the Twentieth Century Fund Task Force on School Governance (1992), this was the last major reform

impacting the evolution of school boards, with school boards remaining relatively unchanged since these reforms in the early 1900s.

This fundamental change in how school boards were elected (from small constituencies in individual city wards representing political interests to at-large elections of board members who would hopefully have the needs of the entire district at heart) radically changed the composition of school boards and opened the door for boards to be dominated by the recognized leaders within the cities and towns primarily representing the views and values of the financial, business, and professional "elite" (Iannaccone & Lutz, 1994; The Twentieth Century Fund & Danforth Foundation, 1992). A 1927 study of the characteristics of school board members revealed that upper-class professionals and business leaders comprised the centralized boards of education (Counts, 1927). For example, in St. Louis, following the reforms in 1897, the professionals on the board soared from 4.8% to 58.3% and representatives from large businesses increased from 9% to 25%, while small business membership dropped from 48% to 17% and wage earners dropped from 29% to 0% (Counts, 1927; Wirt & Kirst, 1982). Although the counter reform efforts of the 1950s and 60s sought to make boards more representative, recent surveys of school board members revealed that the overwhelming majority are still college-educated, male, white, 45-60 years old, and have family incomes in excess of $50,000 (Carol et al., 1986). This shift in the control of schools, away from the grass roots toward small boards dominated by business leaders and professionals, endured until the second half of the 20th century when the public began to doubt the effectiveness of their public schools.

Change in public confidence and the desire for broader representation

Public confidence in local school boards began to fade when the 1954 Supreme Court decision in *Brown vs. the Board of Education* drew attention to the abysmal education afforded children of color (The Twentieth Century Fund & Danforth Foundation, 1992). The Soviet Union's successful launch of Sputnik I in 1957, and the infamous Coleman Report in 1966 (Coleman, 1966, 1985) had a significant impact on federal government education policy and further eroded the public's confidence in their public schools. During the 1960s the civil rights movement led to increased scrutiny of public institutions and doubts about the ability of affluent white men on school boards to represent the needs of the increasing minority population in the schools. Following the passage of the Elementary and Secondary Education Act in 1965, the states became more involved as agents of desegregation and managers of federal categorical funds. With the focus on educational equity and an increasing desire to have the needs of divergent groups represented among the school decision makers, attention was again placed on the governance structure with an emphasis on returning to more of a grassroots system (Nikolai, 1999). It is believed by some that the highly politicized boards in many urban areas today grew out of the reforms of the 60s, which were implemented to counteract the undesirable side effects of depoliticizing governance reforms at the turn of the century (Nikolai, 1999; The Twentieth Century Fund & Danforth Foundation, 1992; Wirt & Kirst, 1982).

The call for more community participation in public agencies and the creation of watchdog citizens' advisory commissions in the 1960s had a significant impact on the role of school boards and how members were elected. By the 1970s, school board elections moved

from citywide elections to combination elections with discrete electoral districts and only a few board members still being elected citywide. The increase of categorical funding from the federal government led to special interest groups demanding more responsiveness from their school board members and school boards becoming more embroiled in constituent politics. By the time Gardner published *A Nation at Risk* in 1983, a flurry of education reforms to strengthen academic standards were bypassing the local school board and overlooking the important role of local governance of schools.

The two decades between 1960 and 1980 became known as the era of "nobody in charge" of public schools (Wirt & Kirst, 1982) as the growth in federal and state categorical programs, insulated from control by the local board or superintendent, narrowed their decision making ability. Other forces during this time (the expanding influence of national organizations, the growth of collective bargaining, and economic forces such as declining enrollment and resistance to increased school taxes) also squeezed the decision-making authority of school boards and their superintendents. The social movements of this time expressed a distrust in public education and focused their efforts on challenging public institutions, including public schools, in an effort to make them more responsive (Carol et al., 1986; Nikolai, 1999; Wirt & Kirst, 1982). As citizens turned to their local school officials expecting them to address their concerns, they came to realize that the decision-making power often resided at the state or some other level. This awareness created a "growing impression that no one was in charge of public education" (Wirt & Kirst, p. 20) and a growing question about the purpose and function of local school boards.

Historical contribution to role ambiguity

The confusion about the role of locally elected governing boards and their sphere of authority is well documented but must not be viewed solely as an artifact of the changing roles of the federal and state government in the 1980s, or the changing economic factors of the 1970s, or the civil unrest of the 1950s and 1960s, or the consolidation and centralization of school districts and boards in the early 1900s. It must be viewed as "the product of over two centuries of evolution" (Carol et al., 1986, p. 14).

In this evolution of the local school board, two series of events stand out as key incidents impacting the public view, and the view of board members themselves, about the roles and responsibilities school boards should assume: (a) the shift from a well-defined administrative role to a less well-defined legislative role following the advent of the superintendency, and (b) the separation of the educational governance from the local government and eventually from the recognized leaders within the community. The decisions to employ full-time superintendents were made reluctantly, and the struggle to direct the day-to-day management of school systems has been a long-standing tension between government and management since that time (Carol et al., 1986). The other decision, the separation of school boards from other local governments, was initiated to protect education from the erratic nature of partisanship and political influence but may have inadvertently served to isolate the schools from other institutions with similar goals. This separation from other local governments also led to the debates about whether schools are best governed by a broad representation of the community or by individuals from the well-educated and "successful" leadership within the community. These two areas of conflict are recurring themes in the literature regarding the roles and responsibilities of local school boards.

Theoretical Models

Research about school boards and the governance of education has developed steadily but not necessarily systematically (Cistone, 1975). The absence of an established theory about the functioning of school boards and school board governance has resulted in a lack of a clear direction to guide research or organize knowledge in this area. Sociology and the political sciences offered models of analysis that seemed appropriate to some researchers (Iannaccone & Lutz, 1970; Mitchell & Spady, 1983; Wirt & Kirst, 2001; Zeigler et al., 1974) but were disregarded by others. Following the reform efforts at the beginning of the 20th century, which detached school politics from the partisan political process (Cistone, 1975), school policy was regarded as "apolitical" and, therefore, using standard, political analytic frameworks was initially regarded as misguided (Wirt & Kirst, 1982). What followed was an uncritical borrowing of concepts and methodologies that resulted in a dearth of comparative, systematically gathered databases for school boards that lagged far behind such databases for other legislative bodies (Cistone, 1975). By the last quarter of the 20th century, the existing literature on school boards could be categorized into four major areas: (a) the evolution of school boards as an institution, including the recruitment and socialization of school board members, (b) the school board and its authority relationships with other units of government and with the administrative and teaching staff, (c) the school board in relation to community structures, and (d) the school board in relation to community demands and support (Cistone, 1975). These categories have remained relatively unchanged during the last quarter of the 20th century, with the addition of a few studies beginning to investigate the link between the governance of schools and the achievement of students in those schools (Alsbury, 2002; .Coleman & LaRocque, 1990; R. H. Goodman et al., 1997b; Hofman, 1995; Joyce et al.,

2001; LaMonte et al., 2005; LaRocque & Coleman, 1993). From these broad categories, a theoretical framework to guide continuing research has begun to emerge.

Toward a Theory of Representation

A theory of representation must grow out of an understanding of representation as a relationship between the representative assembly, the school board, and the citizens they represent (Jennings & Zeigler, 1971). Few researchers would argue that this relationship has not been impacted by the changing nature of school districts and the constituents they serve. Following the extensive consolidation of school boards at the turn of the century, by 1932 there were 127,520 public school districts with governing boards (Iannaccone & Lutz, 1994). In 2002, there were 17,761 local school districts and boards (U. S. Department of Education National Center for Education Statistics, 2003), a decrease of more than 85% in the number of public school districts and local boards of education. During this same time period, the enrollment of students in schools increased from 31 million to 48 million (U. S. Department of Education National Center for Education Statistics, 2003), a 55% increase in the number of students served in the nation's public schools. In 1932 the ratio of school board members to students was approximately 1 board member for every 46 students (Zeigler et al., 1974). By 2002, the ratio of school board members to students was approximately 1 board member for every 539 students. The degree to which fewer districts with larger numbers of students impede a board's ability to be responsive to their constituents is still debated, but there is little question that these changing demographics, at the very least, have placed school boards in a more distant relationship with the citizens they represent and the students they are elected to serve.

Dichotomous views of representation

Similar to studies of city councils and other publicly elected officials, the early studies of school boards tended to categorize boards into dichotomous groups based on the degree to which they were considered to be representative of and/or responsive to their constituent populations. These categories took various names, but were similar in the conceptual description of board members as either more politically or professionally oriented toward their representative responsibilities.

Based on studies of city councils in the mid 1960s that described elite and arena councils, Gresson (1976) conducted some of the early research on school boards from these two perspectives. According to Gresson, elite boards regarded themselves as separate from and trustees for the people while arena boards acted as delegates of the people and behaved as "community in council" (Lutz & Iannaccone, 1986, p. 9). Researchers following this example (Lutz, 1980; Lutz & Gresson, 1980) argued that elite boards relied heavily on the superintendent, sought consensus, and rejected the notion of representing specific constituencies as opposed to the arena boards that relied less on the superintendent, frequently had split vote decisions, and the members of the board deliberately represented specific segments of the community.

Tucker and Zeigler (1980) described boards as either hierarchical or bargaining. The hierarchical boards deferred to the decision-making authority of the superintendent and then served as the communication link between the superintendent and the public. The bargaining boards, on the other hand, reflected both the recommendations of the superintendent and the preferences of the community.

The 1986 report from the Institute for Educational Leadership (Carol et al., 1986) categorized board members as either trustees of the public interest or representatives/delegates of specific groups. The trustees emphasized a reliance on the superintendent while the delegates emphasized accountability to their constituents.

According to Greene (1992), the distinctions among these different views of representation were whether board members view themselves as part of a technical/political process and respond to the demands of parent and community groups, as part of a professional process and defer to the expertise of the superintendent and other school professionals, or some combination of the two and negotiate district policies that accommodate the needs of both the professionals and the community. Greene, along with others (Tucker & Zeigler, 1980; Wirt & Christovich, 1989), concluded that a "substantial majority of school boards adopt the professional orientation" (p. 221). Alvey and Underwood (1985), on the other hand, illustrated board members' desire for significantly more decision making responsibility in key areas of schooling, and Lutz (1980) argued that most school board members try to come to decisions that are equally good for everyone.

Implications for governance

Not only have there been differing views about the dichotomous roles of boards, there have also been conflicting interpretations about the governance implications of these same phenomena. Conley (2003) concluded that the consolidation of school districts into larger units decreased board members' responsiveness and removed them from contact with the local communities served by the school district. "As districts become larger, the sense that

they represent the community is diminished, local control has less meaning, and there is less resistance to state control because there is less allegiance to local districts" (pp. 9-10).

Green (1990), however, concluded just the opposite from his review of the research on school board responsiveness and his own study of New Jersey board members. Extending his study with results from researchers such as Zeigler, Lutz, and Gresson, Green reported that school district complexity, as measured by the size of the student population and the region and grades served by the district, is a primary variable that affects responsiveness with the board members in more complex districts more responsive than those in smaller districts. Similarly, Stelzer's (1974) national study of school boards revealed that "when there was little community conflict, boards were less receptive to community input. When there was more intense community conflict, the board became more receptive to challenging established policies" (p. 135). While intense conflict can be present in either large or small communities, the increased diversity in larger communities creates a potential for conflict that may or may not exist in smaller communities that tend to be less diverse and have more congruence between the citizens and their elected officials (Wirt & Kirst, 1982).

Factors impacting responsiveness

In addition to studying the degree of responsiveness of school boards, scholars have also examined the contextual and political factors that affect the orientation of the board and influence responsiveness. Factors such as the size of the school district, community conflict, the complexity of the school district, the level of competition for school board seats, and whether school board members plan to seek reelection have been shown to impact the board orientation and degree of responsiveness of board members (Greene, 1990, 1992).

Interestingly, Greene's study showed that the socioeconomic status of the community was not an influencing factor in board orientation or responsiveness, and that community conflict and incumbent defeat were more strongly related to board orientation than district size. In contrast, however, Iannaccone and Lutz (1994) identified district size as one of three most influential factors resulting in decreased responsiveness of school boards to their constituencies. The other two factors included the degree of homogeneity in the community and the differences between the values of the board members and those of the constituents.

Jennings (1971) concluded from his 1968 study of 550 board members in 88 school districts across the continental United States that there are two contrasting styles of school board representation: one that responds to formal groups and another that responds to unattached individuals. His analysis indicated that the less complex the environment, the less responsive the elected board members were to organized groups within the community but the more responsive they were to individuals and individualized preferences. Which was viewed as better, group or individual responsiveness, depended upon whether the community placed a higher value on open access or diversity and structuring of demands.

McCarty and Ramsey (1971) identified four types of community power structures that influenced the orientation and function of the local school boards: (a) dominated structures with a few individuals possessing most of the power resulting in dominated boards; (b) factional structures with power distributed among community factions and competing agendas resulting in board members representing major factions; (c) pluralistic structures where power was dispersed among coalitions that temporarily formed around specific issues resulting in issue oriented boards; and (d) inert structures where community

power is rarely exercised in relation to public schools resulting in boards that routinely approved administrative recommendations (Kowalski, 2006).

In his inventory of the research on community involvement in school board policy formation, Zerchykov (1984) reported that the responsiveness of school boards is a reflection of the culture and structure of school policymaking. His analysis of 22 significant studies indicated factors such as election practices, the neighborhood or constituency base of the board members, the political ambitions of the board members, the length of time on the board, the means by which citizens indicate their demands, and the responsiveness of the superintendent as having an impact on the responsiveness of the school board.

These studies with both conflicting and congruent observations supported at least two generalizations: (a) contextual factors do have an impact on the orientation of school boards and how they view their roles and responsibilities, and (b) much of the confusion about roles and responsibilities of governing boards grows out of a desire for two distinctively different categories of representative behavior: being a trustee of the public interest or a delegate of specific group or individual interests.

Three theoretical models from the social and political sciences

One way of considering the role of local school boards has been to consider their role in relation to the school's connection to the political systems of a democratic government. Three theories have emerged from the political science arena and have been applied to local education governance in various attempts to explain the democratic and political nature of school boards (Alsbury, 2001b, 2003; Iannaccone & Lutz, 1994). These theories differ in respect to how they define democratic characteristics and how they judge the effectiveness and efficiency of local school governance in relation to these democratic standards.

Competition/Participation Theory

One theory, the competition/participation theory (Iannaccone & Lutz, 1994), is applied and supported by the research of Zeigler, Jennings, & Peak (1974). Their study in 1968 of 581 board members and 94 superintendents in 96 school districts across the continental United States was concerned with the degree to which school boards are responsive to the public and the extent to which boards act on the basis of the public needs and wishes. Ziegler et al. relied upon a definition of democracy based upon continuous competition and participation in the political arena. Grounded in this definition, the essential element in determining the degree to which school governors exemplify democratic principles was dependent upon the degree to which school governors were responsive to the preferences of the governed. They focused on three components of local district governance to determine the representative nature of the governance team: (a) the recruitment and selection process of school board members; (b) the relationship between board members and the public; and (c) the relationship between the district governors and the superintendent. In other words, in the ideal democratic fashion, voters select the school board in accordance with constituency preferences, the board formulates policy in response to community demands and needs, the superintendent administers the policy with oversight from the board, and the process results in educational policy that is congruent with constituent needs. The researchers concluded that overwhelming evidence suggested that this ideal is not fully realized in school districts in relation to any of the three components mentioned above and, therefore, that American public school governance is relatively undemocratic.

Decision Output Theory

Wirt and Kirst (1982) turned to another form of theory, heuristic theory, as a model for analytically separating and categorizing components of the educational system. They employed Easton's (1965) heuristic framework for political analysis to organize key concepts related to the political dynamics of education and create a conceptual framework to examine the relationship between inputs and outputs of the policy-making process in schools. Wirt and Kirst's (1982) model, the decision-output theory, assumes that educational policy making is innately a political process that allocates value preferences through material (e.g., textbooks, curriculum) or symbolic (e.g., Martin Luther King's birthday as a school holiday) means. The democratic nature of this process is determined by the interrelationships between the political system and other subsystems of the social environment. Wirt and Kirst illustrated these links by describing how subsystems generate inputs of demands on and supports of the political/school system. The school system then converts these inputs into public decisions or outputs, which in turn feed back allocated values into the environment. Since schools lack sufficient resources to meet each demand placed upon them by the community, they must choose which group demands will be acted upon and which will not. This assumption of a finite pool of resources and an infinite pool of public demands upon those resources implies that school policies and programs are seldom commensurate with citizen demands and, therefore, "fall short of the democratic promise in school governance" (Iannaccone & Lutz, 1994, p. 41).

Dissatisfaction Theory

Another theory, the dissatisfaction theory of American democracy, is based upon a 1960 ethnographic study of a school district experiencing rapid change (Iannaccone & Lutz, 1970). The line of research that followed this initial study supports a model of the changing political relationship between the community and its local school board/superintendent team referred to as the Dissatisfaction Theory (Lutz & Iannaccone, 1986). This thesis describes a sequence of events resulting in school board incumbent defeat and superintendent turnover:

1. The community changes.
2. The changes bring about changes in values and expectations that impact the public education programs and policies of the district.
3. School boards tend to ignore these emerging values.
4. Citizens grow dissatisfied with the schools and their policy makers.
5. Periods of political satisfaction and waves of dissatisfaction and conflict make superintendents and boards more vulnerable.
6. Dissatisfied individuals (though they usually have different interests) unite and set out to change public policy at the ballot box.
7. More challengers run for office and voting in school board elections increases.
8. Some incumbents refuse to run and others are defeated at the polls.
9. Incumbent board member defeat is followed by new alignment on the board and turnover of the superintendent.
10. The new board and new superintendent adjust policy and programs.
11. A new stability is achieved until the process begins again.

(Lutz & Iannaccone, 1986, pp. 13-15)

(Iannaccone & Lutz, 1994) concluded this recurring pattern of behavior as a characteristic of school district governance results in a theoretical view of local schools as a good example of grass-roots democracy. Even though the researchers acknowledged that there are times when participation and competition in local school governance is low and times when the policy process appears to be undemocratic, they also acknowledged that the evidence generated from over 30 years of research clearly indicated when voters in school districts become dissatisfied enough, they take action.

Implications for research

Thirty years ago Iannaccone (1975) summarized the existing state of research on school boards into four major themes: "representation, the political culture, a developmental theme, and the significance of diversity" (p. 256), and outlined specific areas that needed to be addressed by researchers and policy makers related to understanding school boards: (a) the aggregation, articulation, and transmission of diverse cultural demands to local school government; (b) distinguishing between two different public interests in education, the broader interests of the general public and the particular interests of pupils and parents, and developing appropriate mechanisms for each; (c) conceptualizing representation as a basis for combining professional and lay or public interests; (d) developing consensus on the definitions of political concepts needed to solve the problems of political conflicts in educational government; and (e) understanding how to link the demographics of a district's culture to the policy-making process so that mechanisms for representation and communication of demands reflect people faithfully. The studies shaping the theoretical frameworks mentioned above are consistent with this direction but much more must be known in order to claim a theory of effective school governance, especially in relation to accountability for student performance and learning.

Purpose of the Study and Research Questions

Wirt and Kirst's (1982) Decision Output Theory introduced the assessment of the democratic nature of school governance by examining the outputs from that governing body. However, the outputs were defined as the decisions made by the governing body in conjunction with the implied values that were subsequently fed back into the system as a

result of those decisions. This focus on examining the decisions and values rather than the effect of those decisions on the achievement of the students in schools seems to exclude important "outputs" from the model. Since most scholars agree that student learning is the ultimate outcome of public education systems (P. Coleman & LaRocque, 1990; Elmore, 2000b; Glickman, 1993; Henderson et al., 2001b), it seems logical to extend upon Wirt and Kirst's definition of outputs by linking the decisions and influence of the school board to the learning of students in their schools.

In addition, numerous studies have confirmed the impact of contextual factors on the beliefs and behaviors of board members (Greene, 1990; Gresson, 1976; Iannaccone, 1967; Iannaccone & Lutz, 1970, 1994; Jennings & Zeigler, 1971; Kerr, 1964; Lutz & Gresson, 1980; McCarty & Ramsey, 1971; Steltzer, 1972, 1974; Zeigler et al., 1974). Therefore, an examination of the impact of board members' behaviors and beliefs on student outcomes would not be complete without a parallel examination of the contextual factors that may be influencing those behaviors and beliefs. While this sets the stage for extensive and comprehensive research, the intent of the current study was to contribute to that line of inquiry by linking the beliefs of school board members about important aspects of their accountability role with the contextual factors influencing those beliefs and the achievement of students in schools.

This study surveyed board members' perceptions in a Midwestern state (Delagardelle & Maxson, 2004) to gather information about the perceived importance of specific behaviors for improving student learning and provide a closer examination of the contextual factors and characteristics that may have influenced those beliefs. The study was conducted to address preliminary answers to the following research questions:

1. Which governance roles and responsibilities do board members believe are most important to positively impact student learning in their school districts?
2. Do some contextual factors and characteristics have more influence on the board members' beliefs about their roles and responsibilities for improving student learning than others?

Summary

School boards are an "essential element in the ideology of local control and have been a major object of inquiry throughout the history of educational research." Studies have revealed a great deal about the demographic and structural characteristics of boards of education but have done very little to shed light on the actual functioning of those boards in governing American education (Zeigler et al., 1974). Glass (2000) reminds us that the question about the effectiveness of school boards in leading public school districts cannot be answered because the criteria for effectiveness is yet to be defined. The debates about whether or not local school governance is an example of a democratic process or whether or not local school boards are the most effective or efficient way to govern local schools are futile rhetoric without agreement about what constitutes democratic governance of schools and the specific behaviors of school boards that have the greatest impact on improving the educational system for all students. This study was an attempt to make a contribution to the knowledge base about effective local school governance by examining board members beliefs about their accountability roles and responsibilities and linking those beliefs to contextual factors and characteristics, and the achievement of students.

CHAPTER 3. METHODOLOGY

The evolution of research in the social and behavioral sciences has seen the emergence of a methodological movement which integrates qualitative and quantitative data collection and analysis techniques in either parallel or sequential phases. This mixed methods approach offers researchers an opportunity to address research questions that other methodologies cannot address (Tashakkori & Teddlie, 2003). With the absence of significant theoretical frameworks regarding the governance of schools in relation to the improvement of achievement, purely quantitative approaches, typically directed at theory verification, will be limited in their usefulness. At the same time, qualitative research, more often concerned with theory generation, lacks statistical verification to confirm observations and impressions. For these reasons, researchers have called for a combination of approaches in the study of school governance issues (Cistone, 1975; Zeigler et al., 1974). "A major advantage of mixed methods research is that it enables the researcher to simultaneously answer confirmatory and exploratory questions, and therefore verify and generate theory in the same study" (Charles Teddlie & Tashakkori, 2003).

The mixed methods design can be either sequential, concurrent, or transformational (Creswell, 2003; Creswell et al., 2003). A sequential design was employed to study the beliefs of board members, understand the contextual factors and characteristics that influence those beliefs, and set the stage for looking at these factors in relation to student achievement. This multi-phase, sequential mixed methods study was carried out to obtain statistical, quantitative results from a sample of board members in a Midwestern state and then followed up with qualitative data from selected individuals to explore those results in greater depth.

In Phase I, quantitative research questions addressed board members' perceptions about the importance of specific governance behaviors related to improving student achievement. Phase II – Part 1 of the study tested specific characteristics of board members and contextual variables to determine if any of these variables may be related to significant differences in the board members' perceptions. The dependent variables were the ratings of importance board members assigned to 14 governance behaviors related to improving student learning on a statewide survey (Appendix A) and the independent variables were specific characteristics of the board members and the school district.

In Phase II – Part 2 of the study, qualitative interviews were used to probe significant differences that surfaced in the quantitative results. Board members in school districts with significantly different perceptions were identified and interviewed to explore their thinking behind the ratings of the governance behaviors, what influences their beliefs about those behaviors, and how those beliefs play out in actions and decisions at the board table.

Phase I – A Quantitative Study of Beliefs about Board Roles and Responsibilities

This phase of the study used quantitative methods to address the first research question about the governance roles and responsibilities board members believe are most important. It also provided quantified information related to the second question by identifying variables associated with statistically significant differences in board member responses. The data used for this phase were collected from a statewide survey (Appendix A) completed in the fall of 2004.

Data collection

As a first step in understanding the perceptions of local board members, a profile of the board members in the state was created using the database of information from the state Association of School Boards at the time the survey was administered. This profile is presented in Table 3.1.

Table 3.1. Profile of local public school board members

Characteristics	Local Board Members	
	No.	%
Total Number of Board Members:	2,075	100.0
Average Age	49	
Number who responded	524	25.3
Gender		
Male:	1,345	66.1
Female:	689	33.9
Total Number who responded	2,034	98
Average Board Experience (yrs)	4	
Number who responded	2,052	98.9
Average Previous Board Experience (yrs)	14	
Number who responded	2,075	100.0
Race		
African American	3	0.2
Asian	2	0.1
Caucasian	1,421	99.2
Hispanic	5	0.3
Native American Indian	0	0.0
Other	2	0.1
Total Number who responded	1,433	69.1
Student Achievement/School Improvement indicated as area of interest	1,126	63.3
Number who responded	1,780	85.8
Teacher Quality/Professional Development indicated as an area of interest	935	52.5
Number who responded	1,780	85.8
Occupation		
Number who responded	1,687	81.3
General Description of Occupations Mentioned:		
Accounting	32	1.9
Administration	74	4.4
Animals/Veterinarian	10	0.6

Table 3.1. (Continued).

Characteristics	Local Board Members	
	No.	%
Assistant	36	2.1
Attorney/Lawyer	31	1.8
Auctioneer	2	0.1
Automotive	9	0.5
Bank-related	36	2.1
Business/Finance/Marketing	110	6.5
Carpenter	3	0.2
Childcare	3	0.2
Community-related	4	0.2
Construction	35	2.1
Consultant	7	0.4
Dentist	15	0.9
Education	82	4.9
Electrician/Telephone Services	10	0.6
Engineer/Architect/Energy	42	2.5
Equipment	1	0.1
Factory/Gen Labor	36	2.1
Farm/Ag-related	323	19.1
Firefighter	2	0.1
Funeral	3	0.2
Government	32	1.9
Health Services	111	6.6
Homemaker	34	2.0
Human Resources	10	0.6
Human Services	12	0.7
Insurance	34	2.0
Information Technology	18	1.1
Law Enforcement	21	1.2
Library	7	0.4
Maintenance	8	0.5
Media	6	0.4
Management	124	7.4
Other	71	4.2
Political Science	0	0.0
Realtor	9	0.5
Religion	6	0.4
Retired/Disabled	61	3.6
Sales	58	3.4
Student	5	0.3
Self-employed	98	5.8
Truck Driver	12	0.7

The Institutional Review Board approved Phase I of this study in July, 2004 (see Appendix B). The on-line survey, mentioned previously, was sent to board members from local school districts and regional service agencies and included questions about governance roles and responsibilities as they relate to student achievement. In addition to board members, superintendents from the school districts and executive directors of the regional service agencies were also asked to complete the survey. The responses were analyzed to understand what board members thought was most important for improving student learning but only the responses of the local district board members were further analyzed in Part II of the analysis to answer questions related to the contextual factors and characteristics that may explain the differences in the responses.

The State Association of School Boards maintains an email list of all board members in the state. This list was used for notification of the participants regarding the survey opportunity. In addition to receiving an email request, a written request with information about the survey and the URL was sent to every board secretary for distribution at board meetings. A follow-up reminder was sent to the board members and superintendents in an electronic email message as well as a written reminder to board secretaries to be distributed at a board meeting. In the packets and email messages to the board secretaries, a hard copy of the survey was included for use with board members who did not have Internet access or who would prefer to complete a written survey rather than an electronic survey. The State Association of School Boards maintained the web site for the survey. The survey process began after an initial email and letter was sent to all board members and superintendents. This included the website address for the survey (a written copy of the survey for those without personal email addresses) and a request for their help in completing it. This initial

contact also made an appeal as to why the data were needed and included the timeline for the survey to be completed. The goal was to have the survey completed prior to the annual school board elections. Following the introductory email, a follow-up email was sent as a reminder to complete the survey. Board secretaries were sent a separate email asking them to distribute information and to encourage their board members to complete the survey.

Studies of participation in solicited web surveys (Manfreda et al., 2002) indicate samples of the general population of Internet users can be expected to reach response rates of 20% at best. One indicator of the Internet use of regional and local board members is the data from the state Association of School Boards regarding the percentage of members that read email messages sent to them. The percentage recorded by an automatic setting which allows the sender to monitor whether or not messages have been read indicates that less than 50% of the membership actually read email messages sent to them. Given the studies of participation in web surveys and the likelihood that board members will even read email messages, the return rate for this survey is higher than might be reasonably expected. The participation rate for each role group is listed in Table 3.2. Although the participation rate was higher than

Table 3.2. Number of survey participants as compared to the total population

	Number of Participants		
Role Group	Took survey	Actual total in role group	Percentage (%)
Local Board Members	508 [510*]	2,075	24 [25*]
Regional Board Members	32 [34*]	101	32 [34*]
Both Reg. & Local Board Members	2	6	33
Superintendents	169	351	48
Regional CEOs	7	11	64
Total	718	2,544	28.2

*Two board members who serve on both regional and local boards are included in the bracketed number.

what might have been expected, it was not high enough to generalize the results to the total population with a high level of confidence without further comparisons.

Comparisons by gender

To understand the participants in the survey better, comparisons of the personal characteristics and demographics of the survey respondents were made to the same traits within the total population from which the sample was drawn (see Tables 3.3 and 3.4). As shown in Table 4.1, the proportion of women to men in the survey sample was very similar to the proportion of women to men in the total population for each role group, with the exception of a slightly higher number of women local board members in the survey sample. The gender representation of superintendents and chief administrators in the survey sample was also reasonably similar to the gender balance in the total population.

Table 3.3. Gender of the survey participants as compared to the total population

	Survey		Actual	
Role Group:	M (%)	F (%)	M (%)	F (%)
Local Board Members	296 (58.3)	199 (39.2)	1,345 (66.1)	689 (33.9)
AEA Board Members	21 (65.6)	11 (34.4)	65 (64.4)	31 (30.7)
Superintendents	148 (87.6)	17 (10.1)	314 (89.4)	37 (10.5)
Chief Administrators	6 (85.7)	1 (14.3)	9 (82.0)	2 (18.0)

Comparisons by age and experience

All age ranges (18-34, 35-54, 55-64, & 65+) were represented in the data (Table 3.4). In addition, the average age of participants in the survey sample was very similar to the average age of the actual population for every role group. The average years of experience of the local board members in the survey was slightly higher than the average experience of

Table 3.4. Age and experience of survey participants as compared to the total population

Role Group	Average Age		Average Experience		
			Survey		Actual
	Survey	Actual	Local	AEA	
Local board members	48.8	49	5.4		4
AEA board members	62.7	63	–	10	10
Superintendents	52.6	52	N/A*		
Chief Administrators	58.3	55	N/A*		

* Not available; did not ask.

local board members in the total population; however, the average years of experience of the AEA board members in the survey was the same as the average experience of AEA board members in the total population.

Representation by geographic location

The representation from each area is shown in Table 3.5. The number of participants and districts represented by each of the regional service agency regions within the state was analyzed to determine representation by geographic area. There were 12 regions in the state and each region was represented in the data.

The distribution of personal characteristics among survey respondents was similar to that for the population that was sampled for each role group. In addition, there was participation from every region in the state, with the number of participants ranging from 27 to 131 in any one region. Furthermore, 79% of the districts in the state are represented by one or more respondents in the data, with no region having less than half of the districts in its area represented in the data. Three of the twelve regions had over 90% of their districts represented in the data.

Table 3.5. Number of participants and districts they represent in each regional service agency as compared to the total population

Regional Agency	Participants	Number of Districts Represented		
		Survey	Region total	Percentage (%)
1	49	20	25	80
2	32	12	13	92
3	59	31	47	66
4	43	18	22	82
5	83	30	33	91
6	114	46	55	84
7	40	22	23	96
8	43	23	31	74
9	40	16	20	80
10	27	12	23	52
11	28	11	13	85
12	131	49	62	79
Total	689 [720*]	290	367	79

* Indicated actual number of participants; 31 did not indicate their district or region on the survey.

Data analysis

To determine how well the distribution of the participant responses approximated the normal distribution that could be expected from the total population, the measures of central tendency (mean, median, and mode), the shape of the distribution depicted by a histogram, and the variation among participant responses were analyzed. The calculated mean, median, and mode were very similar (the median and mode were each within .03 of the mean). The cut points for the 25^{th}, 50^{th}, and 75^{th} percentile were at nearly equal intervals (difference between the 25^{th} and 50^{th} = .26, difference between the 50^{th} and the 75^{th} = .28). The positive value of the kurtosis and the histogram depicting the distribution of the scores revealed a graph that was symmetrical in shape, with the scores tending to cluster or peak around the center of the distribution (a bell-shaped curve that is peaked in the middle is referred to as

leptokurtic). The skewness value (a measure of the extent to which the distribution of scores deviates from symmetry around the mean), of -.904, represents a symmetric or evenly balanced distribution. The skewness value was between ±1.0, which is considered excellent for most psychometric purposes (George & Mallery, 2003).

With the similarities of the personal characteristics of the participants to the total population of board members and top administrators, as well as the representation of each geographic region of the state, age ranges, district sizes, and experience levels, it becomes reasonable to assume that the information is highly representative of all board members and their top administrators. With the measures of central tendency and the distribution of the responses from the respondent sample, it also is reasonable to assume that the responses obtained on this survey might be similar to the responses that could be expected if everyone in the population had responded.

Validity

An important question to consider before using the information from this survey was whether or not the survey is valid. Test validity refers to the extent to which the survey actually measures what it purports to measure and, therefore, how appropriate it is to make inferences from the results. A factor analysis was the statistical procedure used to analyze the responses to items in each section of the survey to determine which items explain the most variation in the participants' responses. The best outcome would be for all of the items in each section of the survey to converge around a single factor, indicating that they measure the same underlying trait. The more factors that surface, the less likely it is that the

instrument actually measures what was intended. The results of the factor analysis are described in the next chapter and indicate that the survey results are valid.

The factor analysis was used to assess the validity of the instrument, determine the extent to which the survey actually measured perceptions related to the specific board behaviors, and identify the number of factors that appear to summarize relationships among the items in each cluster of questions (time spent, importance for local boards, and importance for regional boards). In one of the three clusters (importance for regional boards) the items loaded high on only one factor, which accounted for two-thirds of the variance in responses on those items. In two of the three clusters ("time spent" and "importance for local boards") the items loaded strongly on two factors. Two items, related to "time spent on leadership for improving instruction" and "the importance of local boards establishing procedures to inform the community about student learning progress," loaded strongly on two factors. This result indicates that these two items are nearly equally relevant to each factor, unlike other items that clearly have higher loading on one factor than on the other. The statistical significance of the chi-square value ($p<.001$ for both sets) indicates that additional factors would be helpful for explaining the patterns of variation across items; however, the Eigenvalues for each factor and the communality values for each item demonstrate that the number of factors works well to explain differences across respondents on the items.

The cluster of questions about the amount of time boards spend on particular behaviors seemed to separate into one category of items that was more internal to the school district (goals, leadership, initiatives) and another category of items that was more external to the school district (community, legal mandates). The cluster of questions about the

importance of certain behaviors for local boards seemed to separate into one category of items that related to adaptive/human support (collaboration, feedback, beliefs, community support) and another category of items that seemed more related to technical aspects of improving achievement (focus, initiatives, professional development, mandates). Given that the items related to time and the role of local boards each had two factors explaining most of the variation, it was considered important to separate responses by five categories rather than three in future analysis of these data.

Reliability

A second important question to consider before using the information from this survey is whether or not the survey is reliable. If an instrument is reliable, we can assume the participants' responses would be similar if asked on a different form or at a different time. Cronbach's alpha was the statistical measure used to assess reliability in this study. The results indicated it was safe to assume the results are reliable. Tables 3.6 – 3.8 provide the results for three different sets of items using Cronbach's alpha.

Cronbach's alpha was calculated for all items in each set of questions (time spent, importance for local boards, importance for AEA boards) as an index of the internal consistency of the items in the survey (that is, the degree to which the survey items are interrelated). The results of this procedure are shown in Table 3.6. The values for Cronbach's alpha if each item is deleted were greater than .8 for all items, and greater than .9 for all items in two of the sets. This indicated a high level of consistency among the items in each set of the survey.

Table 3.6. Cronbach alpha coefficient for each survey item

Time spent		Importance for local boards		Importance for regional boards	
Item	Cronbach alpha*	Item	Cronbach alpha*	Item	Cronbach alpha*
T1	.905	L1	.876	A1	.963
T2	.907	L2	.874	A2	.963
T3	.908	L3	.874	A3	.962
T4	.905	L4	.878	A4	.962
T5	.906	L5	.871	A5	.963
T6	.906	L6	.875	A6	.961
T7	.905	L7	.878	A7	.963
T8	.909	L8	.876	A8	.964
T9	.907	L9	.876	A9	.963
T10	.905	L10	.879	A10	.963
T11	.905	L11	.873	A11	.962
T12	.905	L12	.874	A12	.962
T13	.908	L13	.874	A13	.963
T14	.912	L14	.879	A14	.963

* If item is deleted.

Since the items related to time and importance for local boards loaded on two factors, a second reliability value was calculated for the items in each factor. Item results for the different factors are shown in Table 3.7. In each case, the Cronbach's alpha value was deleted if an item was greater than .6, which indicates that eliminating an item from the set loading highly on that factor could result in an undesirable loss of consistency among the remaining items.

The overall Cronbach's alpha values are shown in Table 3.8. The high alpha values (>.8 in one area and >.9 in the two other areas), and the almost identical values produced by the unstandardized and standardized item alpha indicate a high degree of internal consistency of the items in the survey.

Table 3.7. Cronbach alpha coefficient for items related to time and importance when organized by factors

Time				Importance for local boards			
Factor 1		Factor 2		Factor 1		Factor 2	
Item	Cronbach alpha*	Item	Cronbach alpha*	Item	Cronbach alpha*	Item	Cronbach alpha*
T2	.892	T8	.688	L2	.831	L5	.689
T3	.890	T13	.691	L3	.831	L10	.735
T4	.889	T14	.806	L6	.835	L12	.715
T5	.890			L7	.837	L13	.757
T6	.890			L8	.832		
T9	.896			L9	.829		
T10	.888			L11	.831		
T11	.888			L13	.834		
T12	.890						

* If item is deleted.

Table 3.8. Cronbach alpha values on standardized items

		Cronbach alpha for items	
	No. of items	Unstandardized	Standardized
Time spent	14	.913	.913
Importance for local boards	14	.883	.888
Importance for AEA boards	14	.965	.966

In summary, the two key questions that must be addressed before using information from this survey in further studies relate to the reliability and the validity of the survey. The results of the statistical procedures described previously indicate that it is reasonable to assume the survey used in this study is both valid and reliable.

Analysis of variance

The main purpose of this component of the study was to increase understanding of the perceptions of local and regional board members about their roles and responsibilities in relation to student achievement. In addition, there was interest in understanding the views about each other's roles and responsibilities in relation to student achievement and how the perceptions of the board members might be similar to or different from those of the superintendent or regional administrator.

The responses of the superintendents and regional administrators were pooled for this analysis due to the very small sample of regional administrators. The new role group was referred to as Chief Executive Officers, or CEOs, which included the 169 superintendents and the 7 top regional administrators.

To analyze differences between the responses of the board members and CEOs about the role of governing boards, one-way analysis of variance, with Levene's test for homoscedasiticy, and the Brown-Forsythe robust test for comparing means were used to compare mean scores and determine when responses were different enough to be meaningful. In addition, various post hoc tests were used to identify the specific areas of board work where board members and CEOs differed significantly in their beliefs.

Correlations

To understand the relationship between the amount of time board members indicated they spend on certain tasks and how important they reported those tasks to be for their specific role group, a Pearson product-moment correlation coefficient was computed for the responses of local board members about the time and importance for local boards on all 14

items. In addition to studying the correlation between reported time spent and perceived importance of the 14 behaviors, the highest and lowest ranking items were organized and reviewed for each role group using the mean scores.

Open-ended responses

An open-ended question in the survey gave participants the opportunity to provide more information about the roles and responsibilities of local school board members in relation to improving student achievement (question 43). Each comment was read by two reviewers and coded according to what the participant seemed to be saying about the role of the local board. The comments then were categorized and the emerging themes identified. Information about the participants who submitted comments in response to the open-ended question #43 which asked, *"Is there anything else you would like to say about the roles and responsibilities of local school board members in relation to improving student achievement?"* is provided in Table 3.9.

Table 3.9. Number of survey participants who responded to open-ended survey question 43 about local boards

Question 43: *Is there anything else you would like to say about the roles and responsibilities of local school board members in relation to improving student achievement?"*	
Respondents	Number
Local board members	138
Regional board members	12
Top administrators	35
Total	185
Currently have children in school	107
Men responding	114
Women responding	69

Phase II – Part 1: A Quantitative Study of Factors that Influence Board Members' Beliefs

The Institutional Review Board approved Phase II of this study in March, 2006 (see Appendix C). The survey data described for Phase I of this study were also used in Phase II – Part 1 of the study to address the second research question regarding the variables that have the greatest influence on board members' beliefs about their roles and responsibilities for improving student learning. Even though 718 board members, superintendents, and chief executive officers of the regional service agencies participated in this online survey, only the responses of the 510 local board members were used for further analysis in this phase. On the survey (Appendix A), board members were asked to report the length of time they had served on their local board, the time they spend on board work each month, the size of the school district where they live, the region of the state where they live, whether or not they have children or grandchildren in school, and their role, gender, level of education, and age. These were used as independent variables to determine which, if any, may contribute to the differences in beliefs among the board members about their work related to improving student learning.

In the analysis for this part of the study, there were 14 dependent variables (board member ratings of perceived importance of 14 behaviors) and 8 independent/predictor variables. Because of the number and type of dependent variables being analyzed, multivariate analysis of variance (MANOVA) procedures were used to determine the relationship between the participants' responses and the levels of the independent variables (Mertler & Vannatta, 2002). Eight of the independent variables were organized into separate, discrete categories for purposes of analysis. Variables with two categories included whether

or not they have children or grandchildren in school (yes/no) and their gender (male/female). Variables with more than two levels include: school district (selected from a drop-down menu with each school district in the state listed), region (assigned from the geographic regions in the state with a regional service agency), size of school district (7 levels), level of education (5 levels), role (4 levels that were later combined into 3 levels) and age (4 levels). Two continuous variables, years served on the local board and time spent in board meetings each month, were open-ended responses and the numerical value submitted was measured on an interval scale (years served on the local board) or a ratio scale (time spent each month).

The SPSS statistical software package was used to conduct the statistical tests undertaken in this study. Levene's test for equality of variances was used to determine whether or not the different groups had similar variances, and thus provided information to guide the selection of further tests that were conducted (Hinkle et al., 2003). Other statistical tests included: (a) tests of between-subjects effects to calculate values for R and R^2 (the multiple correlation coefficient and the proportion of variance accounted for by the independent variables, respectively); (b) pairwise comparisons between the means for each group; and (c) multivariate analysis of variance methods (MANOVA) to test the significance of group differences (Abrami et al., 2001; George & Mallery, 2003; Hinkle et al., 2003; Mertler & Vannatta, 2002). The results of these tests indicated which of the independent variables were significant predictors of participant ratings of the 14 behaviors.

Phase II – Part 2: A Qualitative Study of Local Board Members in Region 10

Methodology

Esterberg (2002) explained interpretative approaches to qualitative research as an examination of the empirical world with an emphasis on understanding how individuals construct and interpret social reality. Merriam (2002) expanded on Esterberg's definition and discussed several sub-categories of the interpretive theoretical orientation in qualitative research. One of these sub-categories, a basic interpretive approach, is defined as an attempt to understand how participants make meaning of a situation. Board members are constantly engaging in "meaning making" as they attempt to make sense of the pressures and supports in the context of their role and attempt to meet the expectations of the various constituents they serve. The countless decisions made regularly by board members are influenced by a variety of factors, both internal and external to the school district, and ultimately have an impact on whether or not, and how well, students in that school district learn. The purpose of this phase of the study was to begin an inquiry into what influences the beliefs of board members about specific aspects of their governing role, and ultimately affect their actions and decisions as they govern the local school district. This effort to better understand what may be influencing the beliefs and actions of the board members aligned this phase of the study with the basic interpretive approaches of qualitative research.

Therefore, this phase of the study was a qualitative study of two boards identified from the database with significant differences in beliefs about the importance of specific board behaviors that could be explained, in part, by one or more of the variables tested. Individual interviews with board members from these districts were conducted to further

examine the influence these specific factors may be having on board members' beliefs and actions.

Data collection

A typical way of selecting settings and individuals for qualitative research is purposeful selection, also referred to as purposeful sampling or criterion-based selection, and defined by Maxwell (2005) as a "strategy in which particular settings, persons, or activities are selected deliberately in order to provide information that can not be gotten as well from other choices" (p. 88). Because this phase of the study focused on boards where specific beliefs of the members were significantly different from those of other boards, the purposeful selection strategy was used to identify the participating districts and board members in those districts who became the selected participants. A majority of the board members and the superintendents in two districts from a specific region of the state were interviewed for this phase of the study.

During the analysis of Phase II – Part 1 data, school districts where board members' views about the importance of specific board behaviors that were significantly different from other board members in the state were identified for further study. The intent of this phase of the study was to learn more about these differences in beliefs and what may be influencing them. The analysis of the variables indicated that board members from one region of the state were significantly different in their beliefs about their role from board members in any other part of the state. For this reason, two boards from this region that had board members who participated in the first study and had the largest number of board members still on the board that were there when the survey was taken were identified. The superintendent in each school

district was contacted first as the "gatekeeper" to the board. The study was explained to the superintendents and they were informed of the purpose of the study and the desire to interview board members. The superintendents were also asked for suggestions about contacting board members and potential times to conduct individual interviews of approximately an hour in length. Each superintendent also agreed to be interviewed as a part of the data collection for this study.

Following contact with the superintendent, the individual board members were contacted by telephone to schedule the interviews (Appendix D). It was also necessary to gather information about any turnover of board members in these districts since the survey was conducted. This information was obtained from records maintained at the Iowa Association of School Boards. At the beginning of each interview, additional information about the board member's background and board experience was collected. Each participant received information about the purpose of the study, how the data would be used, the confidentiality of their remarks, when the data would be destroyed, as well as being asked to sign an informed consent to participate in the study (Appendix E).

Some qualitative researchers believe that, because qualitative research is necessarily inductive, prior structuring of the methods leads to a lack of flexibility to respond to emergent insights and can result in "tunnel vision" when attempting to make sense of the data (Maxwell, 2005). In contrast, it is also agreed that structured approaches can help ensure the comparability of data across individuals and settings and are therefore useful in understanding differences (Maxwell). For these reasons, a semi-structured interview using open-ended questions was used to maintain the best balance between enough flexibility to enable participant themes to emerge and provide enough structure to enable the comparison

of participants' remarks. After gathering some basic demographic information about the board member being interviewed, the interview questions focused on the areas addressed in the first survey—how the board members describe the role of the board for improving student learning, their view of the most important board behaviors related to that area, how they came to those beliefs, how their beliefs play out in their actions at the board table, and their beliefs about the board impact on student learning. A template for the semi-structured interview is shown in Appendix F.

Data analysis

A logbook and portable filing system was created to manage the data and documents for this phase of the study. A timeline of activities related to the study and documents collected for analysis was maintained in chronological order. Field notes and a contact summary form (Denzin & Lincoln, 2005) were maintained for each interview. The contact summary form (Appendix G) was completed as soon as the field notes had been written and reviewed, and were then used to guide planning for the next contact as well as data analysis.

Each interview was transcribed immediately following the interview and the transcripts were coded using a line-by-line, open coding process for identifying initial themes and categories (Denzin & Lincoln, 2005). The transcripts were read several times and the coding notes were revised or re-coded as a result of familiarity with the whole data set. To identify the working themes, the coded notes were categorized inductively several times, and a final coding of the transcripts was completed by reviewing the data with a specific focus on the working themes. These themes were then confirmed by returning to the interview transcripts and color-coding exact quotes to determine if adequate support existed for each

theme. Throughout the coding process, the qualitative analysis technique of "memoing" (Denzin & Lincoln, 2005) was used to capture ideas about the codes and their relationships and to tie together different pieces of data into a recognizable cluster contributing to sense-making as the data were studied.

After themes and trends in the overall data had been identified, it was necessary to develop and test propositions that could be used to construct an explanatory framework (Denzin & Lincoln, 2005). To complete this phase of the analysis, a matrix analysis of the major themes was used to cross-check tentative findings followed by integrating the data into an explanatory framework that synthesized the data and allowed for drawing and verifying conclusions. Finally, participants were recontacted, when necessary, to verify explanations and get their feedback regarding interpretations. Every effort was made to ensure the conclusions are legitimate, authentic, and represent the intent and point of view of the respondents.

Summary

This chapter described the different phases of the study and the procedures that were used to collect and analyze the data throughout each phase. The next chapter will provide an explanation of the findings that resulted from these various analyses.

CHAPTER 4. RESULTS

Introduction

The purpose of this chapter is to present an analysis of the data collected for this study which sought to provide information related to two research questions: (1) Which governance roles and responsibilities do board members perceive are most important for positively impacting student learning in their school districts? (2) Do some contextual factors and characteristics have more influence on the board members' beliefs about their roles and responsibilities for improving student learning than others?

This chapter is divided into two main sections which are aligned with the phases of the study and the research questions. The first section provides analysis of the data collected for Phase 1 of the study which addressed the first research question. The second section provides analysis of the data collected for Phase 2 of the study which addressed the second research question. Phase 2 is divided into two parts: a quantitative study of specific variables from a statewide survey to examine the influence of those variables on board members' responses, and a qualitative study of board members in a particular region of the state. Therefore, the section of this chapter for Phase 2 of the study is also divided into two parts: quantitative data analysis, and qualitative data analysis.

The overall analysis of the data in this study was guided by a key premise. Given that studies have shown a relationship between the beliefs and actions of board members and the achievement of students in their schools (Coleman & LaRocque, 1990; Joyce et al., 2001), increasing our understanding about what board members currently believe about their roles in relation to governance behaviors that may improve student learning, as well as the contextual

factors and characteristics that influence those beliefs, may be able to guide the recruitment and development of local school governors in ways that increase their effectiveness at generating higher levels of student learning.

Study Sample

Data for Phase 1 of the study were collected from an online statewide survey (Appendix A). The survey was completed by 542 local and regional board members, and 176 top administrators of the school districts and regional service agencies (169 superintendents and 7 agency executives). More complete information about the participant sample and characteristics of the participants were described in Chapter 3.

Data for Phase 2 of the study were collected from several sources. Responses to the statewide survey used for Phase 1 and described in detail in Chapter 3, again, were the primary source of information used to address the second question. However, only the data from the responses of the 510 locally elected public school board members were used for analysis in this phase of the study. The second part of this phase of the study analyzed data from interviews with 9 local school board members and 2 superintendents from 2 school districts in a select region in the state of Iowa. These board members and superintendents are described more specifically later in this chapter. Additional sources of information included financial data for each school district in the state, training data and length of board service for the school board members in the state, and the results of an unpublished study of the performance of students in each school district within the state (Haddad & Alsbury, 2006).

Phase 1 – Quantitative Analysis of Board Members Beliefs about the Importance of Specific Behaviors for Improving Student Learning

The purpose of this section is to present the data and provide a summary analysis of the information related to the first research question—the governance roles and responsibilities board members believe are most important for improving student learning in their districts. Data for this phase of the study were collected from the online statewide survey described in Chapter 3 and included in Appendix A. The survey was completed by 542 local and regional board members, and 176 top administrators of the school districts and regional service agencies (169 superintendents and 7 agency executives).

Due to the close relationship between board members and their chief executive officer (CEO), it was important to examine their beliefs in relation to the beliefs of their CEO. To analyze the differences between the responses of the board members and CEOs, a variety of statistical procedures were used. One-way Analysis of Variance, Levene's test, Brown-Forsythe test, and various post hoc tests were used to compare mean scores and determine when responses were different enough to be meaningful. Comparing the responses of three role groups (local board members, regional board members, and CEOs) showed statistically significant differences among the groups in each category of items ($p < .05$). When differences are statistically significant, differences in the responses probably are not due to chance, and the differences are influenced by the role group to which the respondent belongs. A one-way analysis of variance was conducted to investigate differences in beliefs between the various role groups related to time spent on those behaviors, importance for local boards, and importance for regional boards. The items where responses were significantly different based upon the role of the participant are listed in Table 4.1. Tables with ANOVA results are

Table 4.1. Survey items with significantly different responses attributed to role group

Time Spent	Importance for Local Boards	Importance for Regional Boards
1. Discussing improvement in student learning.	1. Discussing improvement in student learning.	1.
2. Ensuring time exists for all staff to work together to improve student learning.	2. Ensuring time exists for all staff to work together to improve student learning.	2.
3. Developing and expressing a belief that the staff can significantly affect student learning.	3. Developing and expressing a belief that the staff can significantly affect student learning.	3.
4. Establishing criteria to guide the staff in choosing initiatives to improve student learning.	4. Establishing criteria to guide the staff in choosing initiatives to improve student learning.	4.
5. Evaluating the effectiveness of professional development for improving student learning.	5. Evaluating the effectiveness of professional development for improving student learning.	5.
6. Monitoring progress of student learning in relation to improvement goals.	6. Monitoring progress of student learning in relation to improvement goals.	6. Monitoring progress of student learning in relation to improvement goals.
7. Influencing a community-wide belief that all students can and should be expected to learn the basic skills necessary to succeed in the current grade level.	7.	7.
8. Mobilizing the community to support the goals for improving student learning.	8.	8.
9.	9. Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	9. Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.
10. Establishing and communicating a singular focus for improved student learning.	10. Establishing and communicating a singular focus for improved student learning.	10. Establishing and communicating a singular focus for improved student learning.
11. Adopting and monitoring long-range and annual improvement goals to improve student learning.	11. Adopting and monitoring long-range and annual improvement goals to improve student learning.	11. Adopting and monitoring long-range and annual improvement goals to improve student learning.
12. Adopting and monitoring plans for improving student learning.	12. Adopting and monitoring plans for improving student learning.	12. Adopting and monitoring plans for improving student learning.
13. Adopting and monitoring procedures for regularly informing the community about student learning progress.	13.	13.
14. Discussing/reviewing legal mandates and rules related to improving student learning.	14. Discussing/reviewing legal mandates and rules related to improving student learning.	14.

Level of significance: $p < .05$; also see Appendix H.

presented in Appendix H for "local board responsibilities", and are available upon request for "time" and "regional board responsibilities". There were statistically significant differences in the responses of the participants that may be attributed to their "role" for 13 of 14 items related to how much time boards spend on these behaviors, 11 of 14 items related to how important these behaviors are for local boards, and only 5 of 14 items related to how important these behaviors are for regional boards.

When responding to items about the amount of time boards spend on certain behaviors, local board members and CEOs were significantly different in their perceptions on 10 of 12 items (items 1, 2, 3, 4, 5, 6, 7, 10, 11, 12, Appendix A) where significant differences were observed in the post hoc comparisons. Regional board members and CEOs were significantly different in their perceptions on 7 of 12 items (items 3, 4, 5, 8, 11, 12, 13 Appendix A), while regional board members and local board members were significantly different on only 4 of 12 items (items 6, 7, 8, 13 Appendix A).

When responding to items about the importance of certain behaviors for local boards, the CEOs were significantly different from one or both groups of board members on all items (11 of 14) where significant differences existed (items 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 14 Appendix A). The board members were not significantly different from each other on any item.

When responding to items about the importance of certain behaviors for regional boards, the local and regional board member responses were significantly different from each other on 5 of the 14 items where significant differences exist (items 6, 9, 10, 11, 12 Appendix A). CEOs differed significantly from the regional board members on 4 of the 5 items where

significant differences exist (items 6, 9, 10, 12 Appendix A) but CEOs were never significantly different from local board members.

The statistically significant differences in participants' responses that may be attributed to their "role group," as discussed previously, are shown in the following tables and figures. A discussion of the results follows according to each independent variable.

Amount of time boards currently spend on specific behaviors

Table 4.2 depicts which items had significantly different responses (that may be attributed to the participant's role group) about the time boards currently spend on specific behaviors. While the role groups differed with each other on some items about time, the most frequent differences were between CEOs and board members. CEOs and local board members were significantly different on almost every item. CEOs' responses were significantly different on 5 items (3, 4, 5, 11, 12) from both local and regional board members about the time currently being spent by the boards on certain behaviors. The behaviors described in these 5 items include expressing positive beliefs about staff, establishing criteria for taking actions, evaluating professional development, adopting long-range goals, and adopting plans for improvement.

Table 4.2. Items with significantly different responses about time the board spends on specific behaviors

	Regional Board Members	Local Board Members
Local Board Members	6, 7, 8, 13	
CEOs	3, 4, 5, 8, 11, 12, 13	1, 2, 3, 4, 5, 6,7, 10, 11,12

Level of significance: $p < .05$; also see Table 4.1 and Appendix A.

It also was interesting to note that the CEOs always reported less time spent in these 5 areas than their boards reported (Figure 4.1). This raises a question about why board members believe they spend much more time on these issues than chief administrators and superintendents believe they do. These differences in perceptions about how boards spend their time may indicate that the different role groups understand or interpret the statements quite differently. It also could indicate that board members, who spend little time in these areas during their work day, view the time at the board table on these issues as significant, whereas superintendents, who spend much time on these issues during their workday, view time spent at the board table on these issues as minimal.

The four areas in which regional and local board members reported spending significantly different amounts of time were: monitoring student progress, influencing community beliefs about achievement, mobilizing the community to support goals, and adopting procedures for informing the community. As shown in Figure 4.1, in each of the four cases, the regional board members said they spend significantly less time in these areas than local board members do.

A comparison of the mean scores for each role group on the items related to "time spent" is also shown in Figure 4.1. This figure indicates where average responses were higher or lower for each role group. On 9 of the 14 items the CEOs reported their boards currently spend less time in each area than the board members believe they do. Regional board members indicate they spend very little time on 3 items (7, 8, and 13 Appendix A) which are related to the larger community. In addition, regional board members report they spend a great deal of time, more than local boards reported, ensuring that there is strong

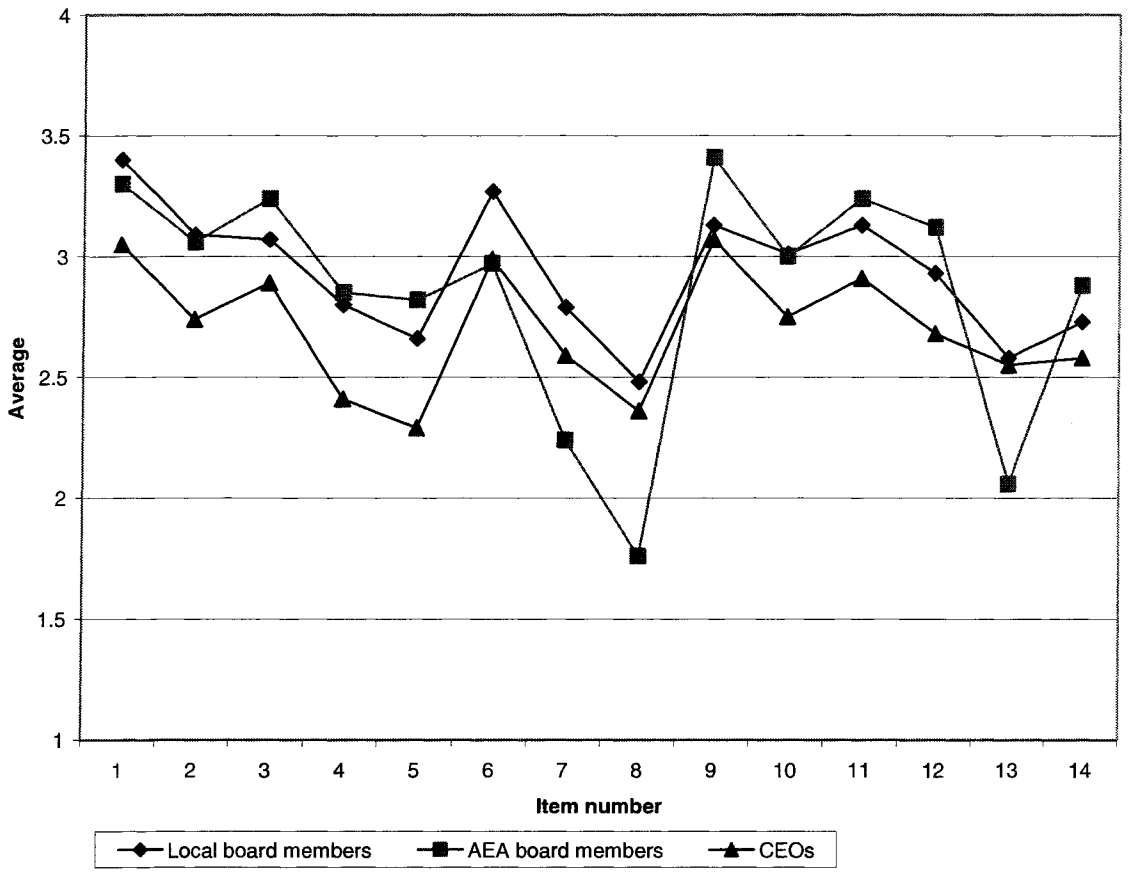

Figure 4.1. Mean scores for "time spent"

leadership for improving instruction, communicating confidence that staff can impact learning, and adopting long-range and annual goals for improvement.

Importance of specific behaviors for local boards

Table 4.3 lists the items that had significantly different responses (that may be attributed to the participant's role group) about the importance of specific behaviors for local boards. The only significant differences in responses about the role of local boards were between CEOs and board members. Again, CEOs and local board members were very

Table 4.3. Items with significantly different responses in perceptions about the importance of specific behaviors for local boards

	Regional Board Members	Local Board Members
Local Board Members	No significant differences existed on any item	
CEO's	1, 3, 4, 5, 11, 12, 14,	1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 14

Level of significance: $p < .05$; also see Table 4.1 and Appendix A.

different on nearly every item. The fact that there were no significant differences between regional and local board members indicates that board members view the role of local boards similarly, but quite differently from how the CEOs view the role of local boards.

A comparison of the mean scores for each role group on each item related to "importance for local boards" is shown in Figure 4.2. This figure illustrates where average responses were higher or lower for each role group.

As shown in Figure 4.2, the CEOs were consistently lower in their views about the role of the local boards than were any of the board members. Items 4 and 5, where the CEOs had the lowest mean scores, were related to establishing criteria to determine actions and evaluating the effectiveness of professional development. It would appear that, even though these behaviors are described as setting direction and evaluating effects (roles typically described as governance behaviors) CEOs view these behaviors as primarily staff-level functions and less important for board members.

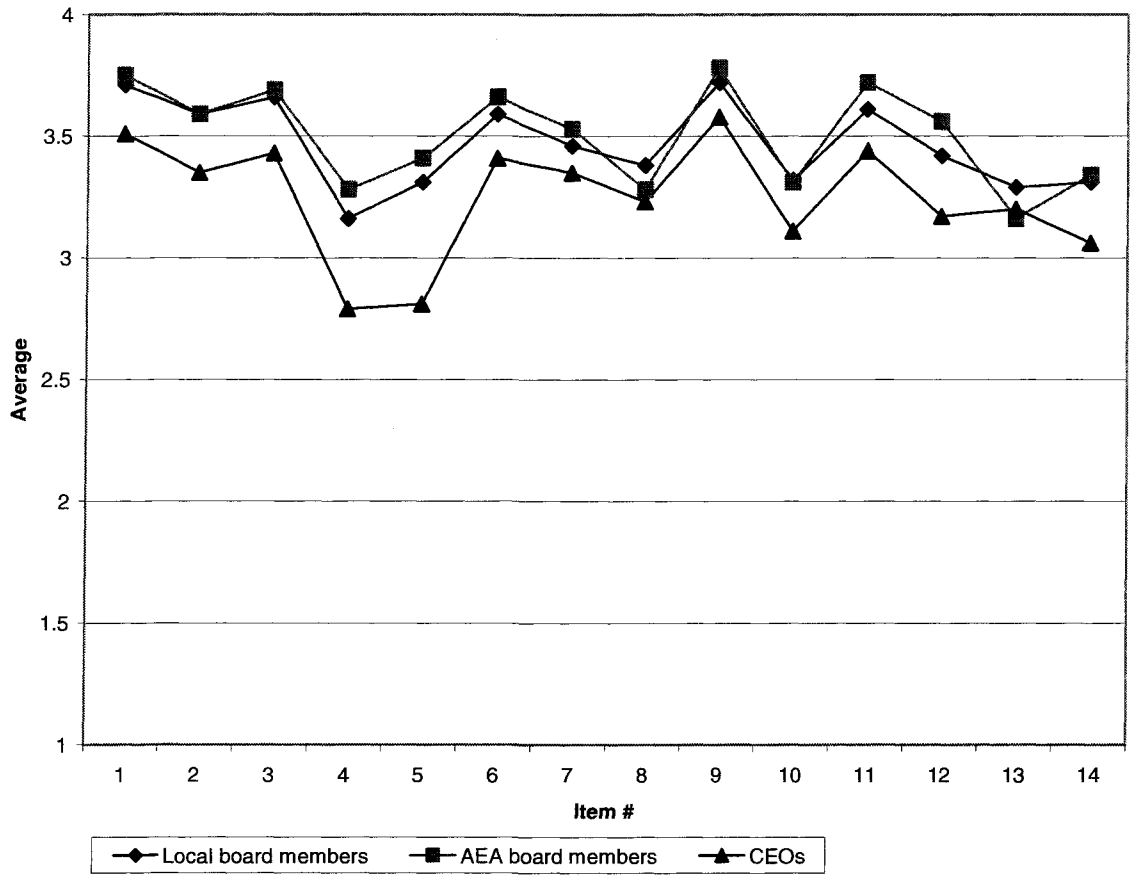

Figure 4.2. Mean scores for "importance for local boards"

It also would appear there are more consistent beliefs about the role of local boards in relation to the community than in other areas related to improving achievement. Although the differences between the local and regional board members were not significant, it was interesting to note that regional board members viewed almost every item as being more important for local boards than the local board members did themselves. The only items where this was not the case (8, 13) were 2 of the 3 items (7, 8, 13) where no significant differences existed, and each related to the community.

Importance of specific behaviors for regional boards

Table 4.4 lists the items that had significantly different responses (that may be attributed to the participant's role group) about the importance of specific behaviors for regional boards. The only significant differences in perceptions about the role of regional boards were between the regional board members themselves and the other 2 role groups. The local board members and CEOs were very similar in their perceptions about the role of regional boards. The 4 items where regional board members differed from both local board members and CEOs were:

6 Monitoring progress of student learning in relation to improvement goals

9 Ensuring strong leadership for improving instruction in ways that result in improved achievement

10 Establishing a singular focus for improving student learning

12 Adopting and monitoring plans for improving student learning

The comparison of the mean scores for each role group on items related to "importance for regional boards" is shown in Figure 4.3. The figure illustrates where average responses were higher or lower for each role group.

Table 4.4. Items where respondents were significantly different in their perceptions about the importance of specific behaviors for regional boards

	Regional Board Members	Local Board Members
Local Board Members	6, 9, 10, 11, 12	
CEO's	6, 9, 10, 12	No significant differences existed on any item.

Level of significance: $p < .05$; also see Appendix A.

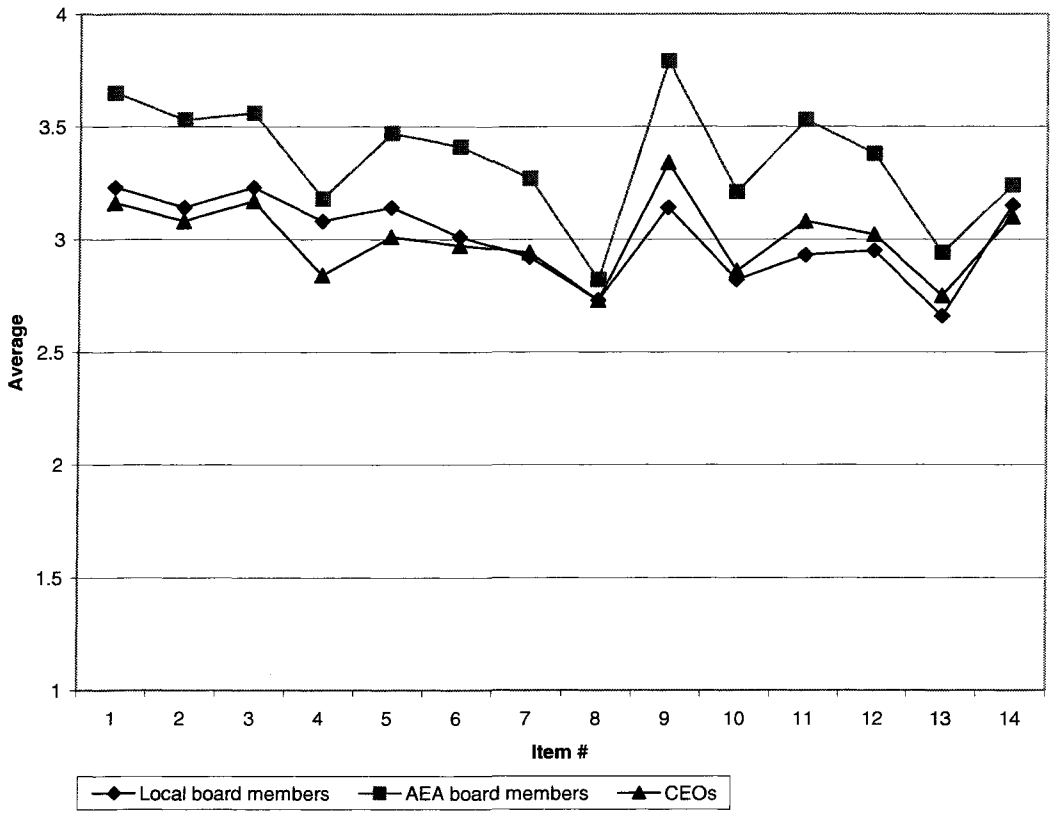

Figure 4.3. Mean scores for "importance for regional boards"

It was interesting to note that regional board members consistently believed that each item on the survey was more important for regional boards than did the CEOs or local board members. The most consistency across role groups about the role of the regional board was for item 8 (mobilizing the community to support improvement goals) and 13 (adopting procedures to keep the community informed about student learning progress) with each role group agreeing that these areas are not as important for regional boards (Figure 4.3).

Correlations

To understand the relationship between the amount of time board members indicated they spend on certain tasks and how important they reported those tasks to be for their

specific role group, a Pearson product-moment correlation coefficient was computed for the responses of local board members themselves about the time and importance for local boards on all 14 items. Similarly, the correlation coefficient was computed for the responses of regional board members when studying the correlation between time and importance for regional boards.

Local board members

There was a statistically significant positive correlation between time and importance for local boards on all 14 items ($p < .01$), however, the correlation was very weak, as shown in Table 4.5. In other words, these data show there was a general tendency for responses to the "amount of time spent" and "how important board members think the behavior is" to change together in a consistent manner; however, even though the relationship is statistically significant, it is not strong enough to make confident predictions about responses in one area based on responses in the other area. Even though the board members generally indicated that they spend more time on items they also felt were more important, the relationship isn't strong enough to assume that they actually do so.

Table 4.5. Correlations for time spent and importance of local board behaviors

Item No.	Pearson product- moment correlation coefficient	Item Number	Pearson product- moment correlation coefficient
1.	.177	8.	.188
2.	.311	9.	.266
3.	.212	10.	.260
4.	.295	11.	.230
5.	.283	12.	.296
6.	.212	13.	.277
7.	.317	14.	.327

Level of significance: $p < .05$.

Another way to look at the relationship between how local board members reported the amount of time they spend and their belief about the importance of the activity is to compare the means for each behavior. The average scores of local board members on each item are shown in Figure 4.4.

The finding that local board members indicated they spend less time in each area related to student achievement than would be expected given the level of importance they placed on each item raises a question about the activities that presently consume board members' time. It also is easy to observe that the largest differences between importance and amount of time spent are on items related to the community (8, 13) (Figure 4.4).

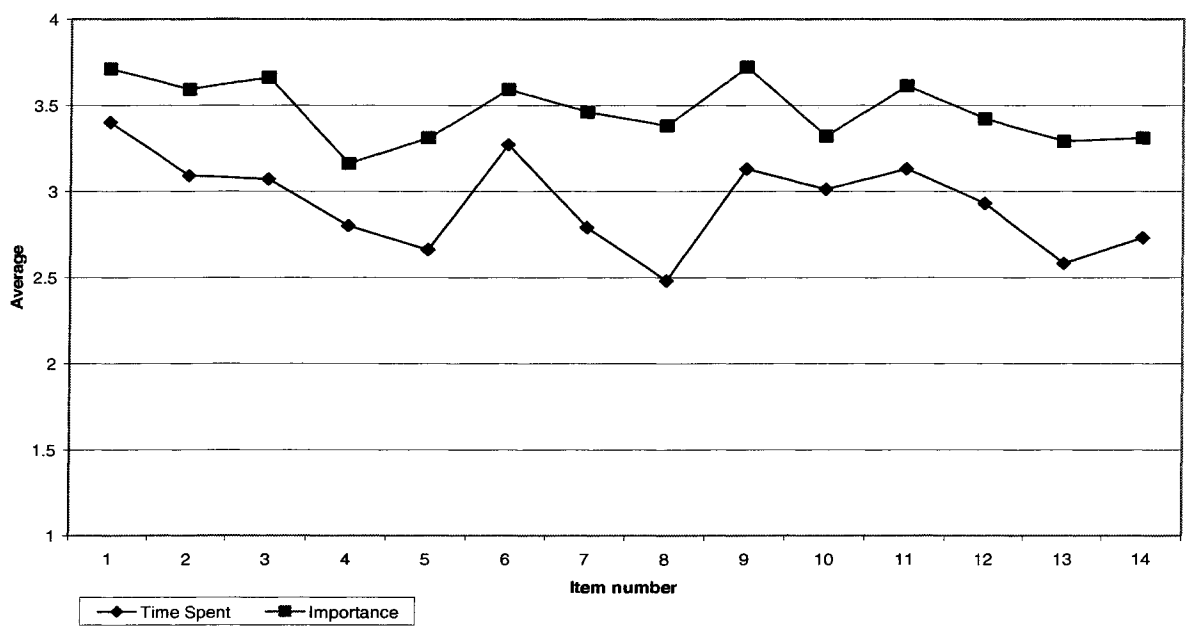

Figure 4.4. Mean scores for time spent and importance for local boards

Regional board members

There was no statistically significant correlation between time and importance for regional boards on 10 of 14 items. There was a significant ($p < .01$) positive correlation between time and importance for AEA boards on four items. The 4 items and the correlation coefficient for each item were:

3 Developing and expressing a belief that the staff can significantly affect student learning ($r = .457$).

6 Monitoring progress of student learning in relation to improvement goals ($r = .373$).

9 Ensuring there is strong leadership for improving instruction in ways that result in improved student learning ($r = .436$).

10 Establishing and communicating a singular focus for improved student learning ($r = .597$).

Comparing the responses of regional board members about the time spent on specific behaviors and their responses about the importance of those same behaviors, only 4 items showed any evidence of changing together in a consistent fashion. The strongest relationships existed when comparing the amount of time spent to the perceived importance of establishing a singular focus for improved achievement, ensuring strong leadership exists, and expressing a positive belief in the capacity of their staff to make a difference.

The average scores for regional board members on each item are shown in Figure 4.5. As with local board members, regional board members indicate significantly less time spent on community connections (items 7, 8, 13) than on other areas. However, different from the local boards, the regional board members do not see mobilizing the community and keeping the community informed of student progress as important to their role as are other areas related to improving achievement.

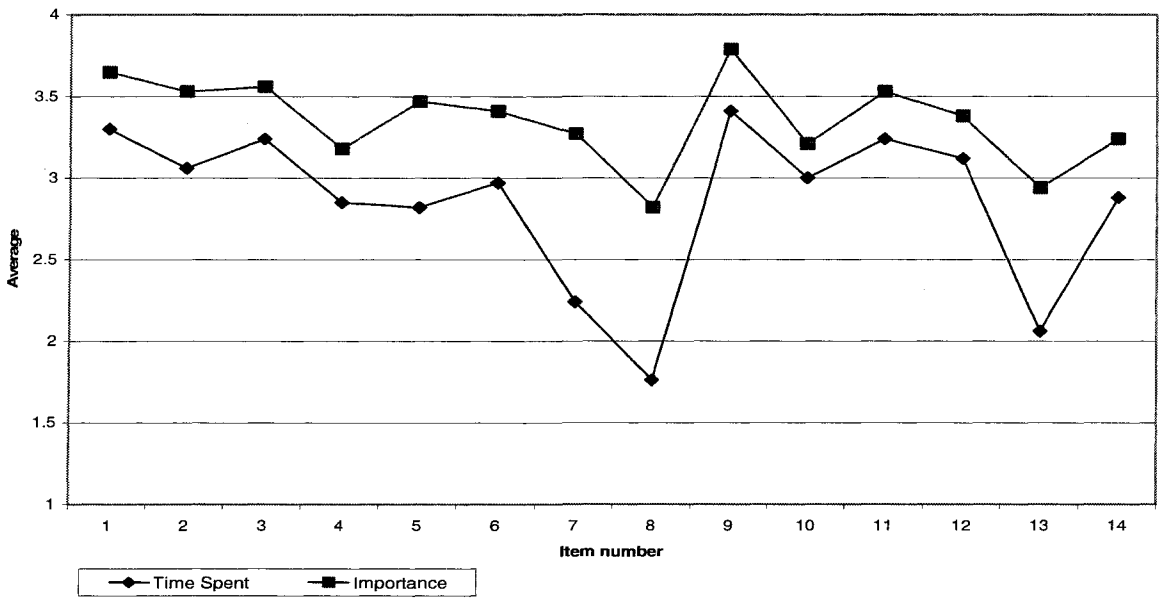

Figure 4.5. Mean scores for time spent and importance for AEA boards

Highest and lowest ranking responses to items, organized by role groups

Various role groups ranked certain items higher and lower than other groups. While there were very few items with mean scores below 2.5 for any role group on any set of questions, the top 4 (highest scoring items) and the bottom 4 (lowest scoring items) for each role group are shown in Tables 4.6 – 4.15.

Tables 4.6 – 4.11 reveal an interesting finding—consistent beliefs across the 3 role groups. Each role group indicated that boards currently spend more time on discussing achievement, ensuring strong leadership exists, and adopting and monitoring long range and annual improvement goals than most other areas. The three groups also believe that ensuring that strong leadership exists is one of the most important roles for local boards. In addition, each role group indicated that discussing student learning and expressing confidence that staff can make a difference was one of the most important behaviors for local boards.

Table 4.6. Time the board currently spends by highest-ranking items for each role group

Board behaviors	Highest-ranking items for each role group		
	Local Board	Regional Board	Superintendent
1 Discussing improvement in student learning.	✓	✓	✓
3 Developing and expressing a belief that the staff can significantly affect student learning.		✓	
6 Monitoring progress of student learning in relation to improvement goals.	✓		✓
9 Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	✓	✓	✓
11 Adopting and monitoring long-range and annual improvement goals to improve student learning.	✓	✓	✓

Table 4.7. Time the board currently spends by lowest-ranking items for each role group

Board behaviors	Lowest-ranking items for each role group		
	Local Board	Regional Board	Superintendent
4 Establishing criteria to guide the staff in choosing initiatives to improve student learning.			✓
5 Evaluating the effectiveness of professional development for improving student learning.	✓	✓	✓
7 Influencing a community-wide belief that all students can and should be expected to learn the basic skills necessary to succeed in the current grade level.		✓	
8 Mobilizing the community to support the goals for improving student learning.	✓	✓	✓
13 Adopting and monitoring procedures for regularly informing the community about student learning progress.	✓	✓	✓
14 Discussing/reviewing legal mandates and rules related to improving student learning.	✓		

All role groups indicated that evaluating professional development, mobilizing the community, and adopting procedures for informing the community were areas where boards spend the least amount of time. Similarly, each role group agreed that adopting procedures for informing the community was one of the least important roles for local boards. Each group agreed that establishing criteria for selecting initiatives to improve achievement was one of the least important roles for local boards.

Table 4.8. Importance for local boards by highest-ranking items for each role group

Board behaviors	Highest-ranking items for each role group		
	Local Board	Regional Board	Superintendent
1 Discussing improvement in student learning.	✓	✓	✓
3 Developing and expressing a belief that the staff can significantly affect student learning.	✓	✓	✓
8 Mobilizing the community to support the goals for improving student learning.			✓ (Regional execs)
9 Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	✓	✓	✓
11 Adopting and monitoring long-range and annual improvement goals to improve student learning	✓	✓	✓

Table 4.9. Importance for local boards by lowest-ranking items for each role group

Board behaviors	Lowest-ranking items for each role group		
	Local Board	Regional Board	Superintendent
4 Establishing criteria to guide the staff in choosing initiatives to improve student learning.	✓	✓	✓
5 Evaluating the effectiveness of professional development for improving student learning.	✓		✓
8 Mobilizing the community to support the goals for improving student learning.		✓	
10 Establishing and communicating a singular focus for improved student learning.	✓		✓
12 Adopting and monitoring plans for improving student learning.		✓	
13 Adopting and monitoring procedures for regularly informing the community about student learning progress.	✓	✓	✓

Table 4.10. Importance for regional boards by highest-ranking items

Board behaviors	Highest-ranking items for each role group		
	Local Board	Regional Board	Superintendent
1 Discussing improvement in student learning.	✓	✓	✓
2 Ensuring time exists for all staff to work together to improve student learning.	✓	✓	
3 Developing and expressing a belief that the staff can significantly affect student learning.	✓	✓	✓
9 Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	✓	✓	✓
11 Adopting and monitoring long-range and annual improvement goals to improve student learning.		✓	
14 Discussing/reviewing legal mandates and rules related to improving student learning.			✓

Table 4.11. Importance for regional boards by lowest-ranking items

Board behaviors	Lowest-ranking items for each role group		
	Local Board	Regional Board	Superintendent
4 Establishing criteria to guide the staff in choosing initiatives to improve student learning.		✓	✓
7 Influencing a community-wide belief that all students can and should be expected to learn the basic skills necessary to succeed in the current grade level.	✓		
8 Mobilizing the community to support the goals for improving student learning	✓	✓	✓
10 Establishing and communicating a singular focus for improved student learning.	✓	✓	✓
13 Adopting and monitoring procedures for regularly informing the community about student learning progress.	✓	✓	✓

Open-ended responses

Two open-ended questions in the survey gave participants the opportunity to provide more information about the roles and responsibilities of local school board members in relation to improving student achievement (question 43) and provide more information about the roles and responsibilities of regional board members in relation to improving student achievement (question 44). The comments were coded, categorized, and analyzed by two reviewers to identify emerging themes. Information about the participants who submitted comments in response to the questions was provided in Chapter 3.

When providing comments about the roles and responsibilities of local boards, the top 2 themes that emerged were: (a) separation of roles (board and district staff) sometimes referred to as micromanagement by the board, but more often a comment about the need to clearly distinguish between the roles and responsibilities of board members and district staff; and (b) student achievement as a key responsibility of local boards.

When providing comments about the roles and responsibilities of regional boards, the top two themes that emerged were: (a) providing support for local districts and local boards; and (b) an uncertainty about the role of regional boards.

Data Analysis for Phase 2 – Part 1 of the Study: Quantitative Analysis of Contextual Factors and Characteristics Influencing Board Members' Beliefs about their Roles and Responsibilities

The purpose of this section is to present the data and provide a summary analysis of the information related to the second research question: Which, if any, variables might explain the differences in board members' beliefs about their roles and responsibilities for improving student learning? Data for this phase of the study were collected from several sources: (a) the responses of 510 local school board members about their responsibilities for improving student achievement on the statewide survey described in detail in Chapter 3 and in Phase 1 of the study; (b) school finance data available from the Iowa Association of School Boards; (c) a database of information about school board members' participation in training events available from the Iowa Association of School Boards; (d) a database of information with the years of board experience for every board member in the state available from the state school boards association; and (e) achievement data for each school district in the state from a recently completed study at Iowa State University (Haddad & Alsbury, 2006). The data analyses were made using the SPSS statistical software package to apply both analysis of variance (ANOVA), and multivariate analysis of variance and covariance (MANOVA, MANCOVA) methods to determine if statistically significant differences existed in relation to specific variables.

Phase 1 of this study analyzed information from a statewide survey using the categorical variable "role group" to which participants could identify themselves as a local board member, a regional board member, a member on both types of boards, a superintendent, or the chief administrator of a regional service agency. That survey also provided information about 7 additional categorical variables and 2 continuous variables (Appendix A). The responses of the participants were grouped in relation to the variables for the analysis in this phase of the study. The additional variables and the response levels for each variable are listed in Table 4.12.

Sample

For purposes of this phase of the study, only the responses of the 510 local school board members participating in the survey were used for further analysis. These participants are described in detail in Chapter 3. The first set of statistical tests focused on understanding the characteristics of the data from the responses of the local board members only and to understand the distribution of the data when the responses of regional board members and CEOs were excluded. A new set of descriptive statistics was produced for these data using the SPSS statistical software package. The measures of central tendency are shown in Table 4.13.

In a normal distribution, the mean, median, and mode would be the same (Vogt, 2005). Thirteen of the 14 items in this survey had the same median and mode, with mean scores that were no more than .5 higher or lower than the median and mode (Table 4.13). In many instances this might indicate a relatively normal distribution of scores around the

Table 4.12. Additional independent variables of local and regional board members and their chief executive officer

Independent Variables	Response Options/Levels
The number of years the participant has served on the board.	Open-ended response
The amount of time the participant's board spends in meetings and/or work-sessions each month.	Open-ended response
The size of the school district.	___Less than 250 ___1000-2499 ___250-399 ___2500-7499 ___400-599 ___7500+ ___600-999
The gender of the participant.	___Male ___Female
The highest level of education of the participant.	___Did not graduate from high school ___High school graduate or GED ___Some college/post high school training (including AA or AS degree) ___Bachelor's degree ___Advanced degree (MA, Ph.D., Ed.D., MD, DVM, etc.)
Whether or not the participant currently has children or grandchildren in school.	___Yes ___No
The age of the participant.	___18-34 ___35-54 ___55-64 ___65 or older
The local school district.	A drop-down menu with all of the school districts in the state listed in alphabetical order.
The region of the state.	A drop-down menu with all of the regional service agencies in the state listed. These were also confirmed or added later by using the state directory

mean; however, with a small range of response options the small difference between the mean and the other two measures may be misleading. The small standard error of the mean (< .04) for all items indicates a greater stability of the data or a smaller sampling error (George & Mallery, 2003).

Box's Test of Equality of Covariance Matrices (Box's M) was used to test for equality of variances in the subgroups of the sample (design: intercept + years-on-local board + time + district size + level-of-education + age + region + gender + children-in-school + region/gender + region/children-in-school + gender/children-in-school +

Table 4.13. Measures of central tendency

Survey Item (see Appendix A)	N	Mean	Std. Error of Mean	Median	Mode
1	499	3.71	0.023	4.00	4.00
2	499	3.59	0.025	4.00	4.00
3	498	3.66	0.025	4.00	4.00
4	496	3.16	0.036	3.00	3.00
5	495	3.31	0.032	3.00	3.00
6	496	3.59	0.025	4.00	4.00
7	495	3.46	0.033	4.00	4.00
8	495	3.38	0.032	3.00	3.00
9	494	3.72	0.022	4.00	4.00
10	491	3.32	0.032	3.00	3.00
11	494	3.61	0.025	4.00	4.00
12	494	3.42	0.031	3.00	4.00
13	496	3.29	0.031	3.00	3.00
14	496	3.31	0.027	3.00	3.00
Total	503	3.47	0.018	3.50	4.00

region/gender/children-in-school). This statistic tests whether the covariance matrices for the dependent variables are significantly different. The results of Box's M Test, (Table 4.14), with $p<.001$ indicate that it is not reasonable to assume equal variances among the sub-groups. However, this particular test is very sensitive, and even though it detects differences between the variance-covariance matrices, it does not necessarily mean the F values are invalid (George & Mallery, 2003).

Table 4.14. Results of Box M test of multivariate normality of the data

Box's M	F	$df1$	$df2$	p
1086.321	1.445	525	16364.282	≤.001

Tests of equal variances

Levene's Test of Equality of Error Variances indicates whether or not the variance of each dependent variable is the same as the variance of all other dependent variables. In this sample (Table 4.15), 12 of the 14 dependent variables were significant ($p<.05$), indicating unequal variances among most of the dependent variables. This implies that the results of the multivariate tests should be interpreted with caution; however, the small F ratios (F = 1.04-4.48) indicate it is reasonable to proceed.

Table 4.15. Levene's test of equality of error variances*

Item	F	$df1$	$df2$	p
1	3.072	46	376	≤.001
2	4.484	46	376	≤.001
3	2.720	46	376	≤.001
4	1.380	46	376	.058
5	1.675	46	376	.005
6	2.781	46	376	≤.001
7	3.472	46	376	≤.001
8	1.418	46	376	.044
9	3.665	46	376	≤.001
10	1.375	46	376	.060
11	1.669	46	376	.006
12	1.201	46	376	.183
13	1.049	46	376	.392
14	2.119	46	376	≤.001

* Design: Intercept + yrslcl + time + dstsize + levelleduc + age + region + gender + chldsch. + region & gender + region & chldsch + gender & chldsch + region & gender & chldsch.

Variables without an overall effect

SPSS was used to test for each main effect and interaction in the variables described above. Pillai's Trace, considered to be one of the more robust tests for differences between the dependent variables due to the independent variables, is reported in Table 4.16. The

Table 4.16. Multivariate analysis of variance for variables with no main effect[a]

Effect	F^a	Hypothesis *df*	Error *df*	p^b	Partial Eta squared	Observed power[c]
Years on local board	1.001	14.000	358.000	.452	.038	.635
Time spent	.521	14.000	358.000	.920	.020	.328
District size	1.164	14.000	358.000	.301	.044	.720
Level of education	1.506	14.000	358.000	.106	.056	.851

[a] Design: Intercept+yrslcl+time+dstsize+leveleduc+age+regional+gender+chldsch+regional * gender+regional * chldsch+gender * chldsch+regional * gender * chldsch.
[b] Computed using alpha = .05Exact statistic.
[c] Exact statistic.

results of the multivariate analysis of variance and covariance indicates that there were no significant differences ($p > .05$) in the responses of board members that could be attributed to the number of years they served on a local board, the time they spend each month in board meetings or work sessions, the size of the district, or the level of education of the board member (Table 4.16).

Variables with an overall effect

Using the SPSS software and again reporting the results from Pillai's Trace, the results indicated significant differences in the dependent variables that may be due, in part, to certain independent variables. As shown in Table 4.17, the multivariate analysis of variance and covariance resulted in significant differences ($p < .05$) in the responses of board members that could be attributed to their age, region of the state where they live, gender, and whether or not they have children or grandchildren in school. The effect size (partial eta squared) indicates that less than 10% of the variance can be explained by each of the variables, however, observed power for both region and gender indicate there is at least a 97% chance that the differences actually exist.

Table 4.17. Multivariate analysis of variance and covariance for variables with a main effect[a]

Effect	F^{b}	Hypothesis *df*	Error *df*	*p*	Partial Eta squared	Observed power[c]
Age	1.787	14.000	358.000	.039	.065	.917
Region	1.538	154.000	4048.000	.000	.055	1.000
Gender	2.274	14.000	358.000	.006	.082	.974
Children in school	1.902	14.000	358.000	.025	.069	.936

[a] Design: Intercept+yrslcl+time+dstsize+leveleduc+age+regional+gender+chldsch+regional * gender+regional * chldsch+gender * chldsch+regional * gender * chldsch.
[b] Exact statistic.
[c] Computed using alpha = .05.

The tests of between-subject effects indicated which responses to items on the survey (the dependent variables) were significantly different ($p < .05$) in relation to the independent variables (Table 4.18). In addition to the four variables mentioned previously, several factor-covariate interactions were significant ($p < .05$) (see Table 4.19).

For each of the dependent variables, the estimated marginal means and standard errors were reviewed for each level of the independent variable and provided the basis for the pairwise comparisons. Due to the large number of dependent and independent variables, those data will not be presented here but are available upon request. The post hoc comparisons of each group with a significant effect were calculated for each dependent variable using the Bonferroni and Tamhanes T2 statistical tests. The Bonferroni test was chosen because it is considered to be more conservative that other post hoc tests and the Tamhane's T2 was used because equal variances among the groups could not be assumed on all items. The results of these post hoc comparisons will be presented separately for each independent variable.

Table 4.18. Items with significant differences attributed to the independent variable

Variable	Survey Items	*F*	*p*	Partial Eta squared	Observed power
Age	6. Monitoring progress of student learning in relation to improvement goals.	4.231	.040	.010	.537
	11. Adopting and monitoring long-range and annual improvement goals to improve student learning.	10.567	.001	.028	.900
Region	5. Evaluating the effectiveness of professional development for improving student learning.	3.474	≤.001	.093	.996
	7. Influencing a community-wide belief that all students can and should be expected to learn and succeed.	5.681	≤.001	.144	1.000
	8. Mobilizing the community to support the goals for improving student learning.	3.044	.001	.083	.988
	10. Establishing and communicating a singular focus for improved student learning.	1.919	.036	.054	.889
	13. Adopting and monitoring procedures for regularly informing the community about student learning progress.	2.174	.015	.061	.930
Gender	1. Discussing improvement in student learning.	10.703	.001	.028	.904
	6. Monitoring progress of student learning in relation to improvement goals.	6.575	.011	.017	.725
	9. Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	5.685	.018	.015	.662
Children in school	7. Influencing a community wide belief that all students can and should be expected to learn and succeed.	12.628	≤.001	.033	.943

Region of the state

This Midwestern state was divided into 12 regions in which the school districts in each region are served by a regional service agency. The pairwise comparisons for each region, on the items where significant differences existed among the board members' responses that could be attributed to region, are shown in Tables 4.20 – 4.24. The regions of the state are indicated across the top and down the side of each diagram. The item with significantly different responses is identified in the title for each figure. An X indicates the regional pairs where board members' responses were different between the two regions. (Tables 4-20 – 4.24 are placed at the end of this subsection.)

Table 4.19. Significant factor-covariate interactions

Variable	Survey Items	*F*	*p*	Partial Eta squared.	Observed Power
Region and Gender	7. Influencing a community wide belief that all students can and should be expected to learn and succeed.	2.966	.001	.081	.986
	10. Establishing and communicating a singular focus for improved student learning.	2.710	.002	.074	.976
Region and Children in school	7. Influencing a community wide belief that all students can and should be expected to learn and succeed.	2.605	.003	.072	.970
	9. Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	1.875	.041	.053	.880
Gender and Children in school	7. Influencing a community wide belief that all students can and should be expected to learn and succeed.	10.454	.001	.027	.897
	10. Establishing and communicating a singular focus for improved student learning.	5.621	.018	.015	.657
Region, Gender, and Children in school	7. Influencing a community wide belief that all students can and should be expected to learn and succeed.	4.736	≤.001	.113	1.00

As can be seen in Table 4.20, significant differences in board members' responses about the importance of evaluating professional development existed between board members in region 10 and board members in almost every other region in the state. Board members in region 10 rated this item lower than did board members in any other region.

All of the significant differences in board members' responses about the importance of school boards influencing community-wide beliefs about achievement existed between region 10 and at least one other region in the state, or between region 11 and at least 3 other regions (Table 4.21). Board members in regions 10 and 11 rated this item lower than did board members in the other regions where significant differences were observed.

All of the significant differences in board members' responses about the importance of school boards mobilizing the community to support the district's improvement goals existed between region 10 and 9 other regions in the state (Table 4.22). Board members in region 10 were lower in their beliefs than were board members in the other regions where significant differences were observed.

All of the significant differences in board member's responses about the importance of school boards establishing and communicating a singular focus for improving student learning existed between region 10 and 4 other regions in the state (Table 4.23). Board members in region 10 were lower in their beliefs than were board members in the other regions where significant differences exist.

All of the significant differences in board member's responses about the importance of school boards informing the community of student learning progress existed between region 10 and 9 other regions in the state (Table 4.24). Board members in region 10 rated this item lower than did board members in the regions where significant differences exist.

Table 4.20. Pairwise comparisons of the regions for item 5

Item 5: Evaluating the effectiveness of professional development for improving student learning											
	2	3	4	5	6	7	8	9	10	11	12
1											
2									X		
3											
4									X		
5									X		
6									X		
7									X		
8									X		
9									X		
10										X	X
11											

Table 4.21. Pairwise comparisons of the regions for item 7

Item 7: Influencing a community wide belief that all students can and should be expected to learn and succeed											
	2	3	4	5	6	7	8	9	10	11	12
1											
2											
3									X[1]	X	
4									X[1]	X[1]	
5									X[1]	X	
6									X	X	
7									X[1]		
8									X[1]		
9									X[1]	X[1]	
10											X[1]
11											X

[1] Significant on Bonferroni but not significant on Tamhane's T2

Table 4.22. Pairwise comparisons of the regions for item 8

Item 8: Mobilizing the community to support the goals for improving student learning											
	2	3	4	5	6	7	8	9	10	11	12
1											
2									X		
3									X		
4									X		
5									X		
6									X		
7									X		
8											
9									X		
10										X	X
11											

Table 4.23. Pairwise comparisons of the regions for item 10

Item 10: Establishing and communicating a singular focus for improved student learning											
	2	3	4	5	6	7	8	9	10	11	12
1											
2											
3											
4									X		
5									X		
6											
7											
8									X		
9											
10											X
11											

Table 4.24. Pairwise comparisons of the regions for item 13

Item 13: Adopting and monitoring procedures for regularly informing the community about student learning progress.											
	2	3	4	5	6	7	8	9	10	11	12
1											
2									X		
3											
4									X		
5									X		
6									X		
7									X		
8									X		
9									X		
10										X	X
11											

Gender

Post hoc pairwise comparisons for gender (Table 4.25) indicate that significant differences in the board members responses to 3 survey items may be attributed to the gender of the respondent. A review of the means for these items revealed that women tended to rate the importance of discussing student learning at the board table, monitoring student learning progress, and ensuring leadership exists for improving instruction as more important for boards to do than did the men who responded to the survey.

Table 4.25. Pairwise comparisons for gender

Dependent Variable	Gender (I)	gender (J)	Mean Difference* (I-J)	Std. Error	P^a	95% CI for Difference[a]	
						Lower Bound	Upper Bound
Item 1 Discussing student learning	Male	Female	-.238[b]	.071	.001	-.378	-.098
	Female	Male	.238[c]	.071	.001	.098	.378
Item 6 Monitoring student learning progress	Male	Female	-.200[b]	.073	.007	-.344	-.055
	Female	Male	.200[c]	.073	.007	.055	.344
Item 9 Ensuring leadership for improving instruction	Male	Female	-.146[b]	.066	.027	-.275	-.017
	Female	Male	.146[c]	.066	.027	.017	.275

Based on estimated marginal means.
* The mean difference is significant at the .05 level.
[a] Adjustment for multiple comparisons: Bonferroni.
[b] An estimate of the modified population marginal mean (J).
[c] An estimate of the modified population marginal mean (I).

Child or grandchild in school

Post hoc pairwise comparisons for child/grandchild currently in school (Table 4.26) indicate that there were significant differences in the board members responses to only one survey item that may be attributed to whether or not the board member currently has a child or grandchild attending the school where they are on the board (Table 4.26).

Table 4.26. Pairwise comparisons for child/grandchild in school

Dependent Variable	chldsch (I)	chldsch (J)	Mean Difference (I-J)	Std. Error	P^*	95% CI for Difference*	
						Lower Bound	Upper Bound
Item #7 Influencing a community-wide belief that all students can and should be expected to learn and succeed	No	Yes	-.329	.093	≤.001	-.513	-.146
	Yes	No	.329	.093	≤.001	.146	.513

* Computed using alpha = .05.

Board members who had a child or grandchild in school rated influencing community beliefs about student learning as significantly more important for boards to do than did board members who did not have children or grandchildren in school.

Age

The significant differences on 2 survey items that may be attributed to age were related to the importance of local boards monitoring the progress of student learning and adopting and monitoring long-range and annual improvement goals to improve student learning. Mean scores for each age range on these two items can be seen in Table 4.27. Board members 65 years old or older (when it is typical for board members to be retired and without children at home) rated the importance of monitoring student learning progress lower than did any other age group. This group of board members also rated the importance of adopting and monitoring long-range and annual improvement goals to improve student learning lower in importance than did any other age group. However, the youngest board members (ages 18-34) rated the importance of setting long-range and annual improvement goals focused on improving achievement higher than did any of the other board members.

Table 4.27. Means by age for items with significant differences

Survey Item	Age	N	Mean	Std. Deviation
6. Monitoring progress of student learning in relation to improvement goals.	18-34	18	3.56	.511
	35-54	377	3.60	.571
	55-64	77	3.57	.524
	65 or older	24	3.46	.588
11. Adopting and monitoring long-range and annual improvement goals to improve student learning	18-34	19	3.68	.478
	35-54	373	3.62	.522
	55-64	77	3.58	.656
	65 or older	25	3.44	.768

Exploration of other variables across geographic regions

Even though significant overall effects were observed for age, region, gender, and children in school, the variable that influenced the largest number of response items was the region of the state where the board members live. In particular, region 10 was different from most other regions in the state on approximately one-third (5 of 14) of the survey items. The 5 dependent variables with significant differences can be grouped into 3 main areas for purposes of discussion: 1 item related to the board's responsibility for evaluation the effectiveness of professional development for improving student learning, 3 items related to the board's connection to the community (influencing beliefs that all students can learn, mobilizing community support for the improvement goals, and regularly informing the community about student learning progress), and 1 item related to the board's responsibility for establishing a narrow focus on improving achievement.

Data about school districts is seldom aggregated to the regional service level. Therefore, the fact that board members from one area of the state were quite different in their beliefs from board members in other raised questions about other factors, unique to this area, that might influence the beliefs of board members in this sample. Several people with educational backgrounds and experience working with school boards (1 school finance expert, 2 former superintendents, 1 current superintendent, 5 school board association staff members, and 5 school board members) were asked what they thought might influence the beliefs of board members about their role in relation to a focus for improvement, professional development, and the community connection that might be unique to a specific area of the state. The factors they mentioned most frequently included economic factors within the area, turnover of the board members, and board members' participation in training about their role

for improving student learning. Since these factors surfaced repeatedly as possible explanations for differences in beliefs of board members, one-way analysis of variance was used to determine if there are significant differences across the 12 regions of the state related to these variables by comparing each of these dependent, continuous variables (financial health of the school district, board stability, and board members' participation in training) with the categorical independent variable (region). Tables (4.28-4.2) provide the results of these tests.

Economic factors

Since the purpose of this phase of the study was to identify factors that may influence the beliefs and actions of school board members, 2 indicators of the financial health of every school district and the percent of students living in poverty within each district were used as the economic factors to test. The solvency ratio for each district, a ratio defined by the formula ((designated cash flow + undesignated/unreserved cash) ÷ total general fund revenues), and each district's unspent balance were used as the two indicators of district financial health. Both of these indicators were weighted based on the number of students enrolled in the district. The percent of students living in poverty was determined by the number of students participating in the free or reduced-price lunch program in each school district. Data for these indicators were obtained from the Iowa Association of School Boards.

First, descriptive statistics were computed to check whether or not the occurrence of these variables is normally distributed across the state. The results of these calculations (Table 4.28) indicate that it is safe to assume a relatively normal distribution exists for the percent of students living in poverty and the solvency ratio for each district in the state. For

Table 4.28. Descriptive statistics for financial indicators

		SolvRat	% FreeRed	Unspent Balance
N	Valid	365		365
	Missing	0		0
Mean		11.935	29.70	1495.356
Median		11.321	29.11	1225.914
Mode		.000	25.87	-1034.100*
Skewness		.451	.314	2.481
Std. Error of Skewness		.128	.128	.128
Kurtosis		.775	-.138	13.052
Std. Error of Kurtosis		.255	.255	.255

* Multiple modes exist. The smallest value is shown.

each of these variables the mean, median, and mode were nearly the same and both skewness and kurtosis values were between ±1, indicating a shape that is close to normal with very balanced symmetry around the mean. Values for the weighted unspent balance were not evenly distributed throughout the state. The mean and median values were very similar but there were multiple modes within the data. The lowest value for the mode, shown in Table 4.28, was quite different from the mean and the median. The positive skewness value (2.481) indicates a moderate level of symmetry around the mean with a greater number of smaller values. The positive kurtosis value (13.052) reveals extreme peakedness of the distribution.

Solvency ratio

Results of the one-way ANOVA for solvency ratio (Table 4.29) indicate there are no significant differences between regions of the state based on the solvency ratios of school districts in each region ($F = 1.319$, $p = .212$). In other words, region 10 is not significantly different from other regions in the state based on this financial indicator.

Table 4.29. Analysis of variance for the solvency ratios

	Sum of Squares	*df*	Mean Square	*F*	*p*
Between Groups	.361	11	.033	1.319	.212
Within Groups	8.791	353	.025		
Total	9.152	364			

Unspent balance

Levene's test for equal variances (Table 4.30) indicates that equal variances cannot be assumed (p = .001) for unspent balance between the regions. A one-way ANOVA model was estimated to investigate differences in unspent balance between the 12 regions. ANOVA results (Table 4.31) show a modest overall effect for unspent balance between the regions (F = 1.826, p = .048). Since equal variances could not be assumed, both Bonferroni and Tamhane post hoc tests were conducted to determine where differences exist. Neither set of test results revealed any significant differences among the regions.

Table 4.30. Levene's test for equal variances for district unspent balance

Levene Statistic	*df*1	*df*2	*p*
3.093	11	353	.001

Table 4.31. One-way ANOVA summary for unspent balance

	Sum of Squares	*df*	Mean Square	*F*	*p*
Between Groups	27758295.931	11	2523481.448	1.826	.048
Within Groups	487808415.913	353	1381893.529		
Total	515566711.844	364			

Students in poverty

Results of the one-way ANOVA for students in poverty (Table 4.32) indicate there are significant differences between the regions of the state based on the percent of students in each district who are in the free/reduced lunch program ($F = 11.239$, $p < .001$).

Table 4.32. Analysis of variance for percent of students in poverty (free/reduced-price lunch program)

	Sum of Squares	*df*	Mean Square	*F*	*p*
Between Groups	11470.216	11	1042.747	11.239	<.001
Within Groups	32750.980	353	92.779		
Total	44221.196	364			

Results of the post hoc tests (Scheffé) that were conducted to understand which regions differed significantly ($p<.05$) from each other are provided in Table 4.33. The symbols + and – indicate which district has a higher percent of students in poverty. The plus sign (+) is entered beside the region number if it has a higher percent of students in poverty than the comparison region in the top box and the minus sign (-) is entered beside the region number if it has a lower percent of students in poverty than the comparison region in the top box. The table makes it easy to see that region 10 has significantly more students in poverty than 2 other regions in the state, but region 9 has significantly more students in poverty than region 10. In addition, region 9 has significantly more students in poverty than 4 other regions in the state. In other words, if differences in board member beliefs could be explained by the percent of student living in poverty, then you would expect region 9 to have lower beliefs than region 10, and that was not the case.

Table 4.33. Regions with significant differences based on percentage of students receiving free or reduced lunch

Region	1	2	3	4	5	6	7	8	9	10	11	12
Regions with significantly higher or lower % of students in poverty		9+	5- 6-	9+	9+ 10+	3+ 8+ 9+ 10+		16-	2- 4- 5- 6- 12-	5- 6-		9+

While several regions differed significantly from several other regions in the state, two regions (6 and 9) stood out because they are very different from at least one-third of the other regions in the state based on the percent of students in poverty. Region 6 has fewer students in poverty than about one-third of the other regions and Region 9 has more students in poverty than almost one-half of the other regions in the state. It would be reasonable to assume that the differences in the beliefs of board members in Region 10, the region where board members in the sample expressed lower beliefs about the importance of specific board roles for improving achievement, are probably not explained by the differences in the percent of low socioeconomic status (SES) students in their schools.

Participation in training

The next set of statistical tests attempted to address the suggestion that differences in the amount of training of board members in Region 10 might be related to their differences in beliefs about their roles and responsibilities. The question being addressed is whether there are significant differences in the amount of training board members receive (the dependent variable) in the various regions of the state (the independent variable). The null hypothesis being tested was that there are no differences in board training between the regions and that any observed differences in the means are due to chance. The alternate hypothesis, that at

least one group is different from the others, assumes that board members in Region 10 participate in less training than do the board members in other regions.

Using data available from the state association of school boards, a number was assigned to each district representing the total number of board training events attended by people from that school district over the past 3 years. No information was available for 2 school districts in region 8 regarding their participation in training. Therefore, subjects were deleted listwise in an effort to minimize the effect of the missing data. Group means and standard deviations of the dependent variable are reported for each of the 12 regions in Table 4.34. Levene's test for equal variances is presented in Table 4.35 and indicates homogeneity of variance among the groups, $p = .343$.

Table 4.34. Descriptive statistics for the dependent variable, participation in training

Region	*N*	Mean	Standard Deviation	Standard Error	95% CI for Mean		Min	Max
					Lower Bound	Upper Bound		
1	24	50.08	24.541	5.009	39.72	60.45	14	117
2	13	47.85	26.191	7.264	32.02	63.67	10	118
3	46	39.30	21.668	3.195	32.87	45.74	3	117
4	22	58.41	35.731	7.618	42.57	74.25	7	146
5	33	57.21	37.446	6.519	43.93	70.49	15	163
6	54	51.85	30.576	4.161	43.51	60.20	7	159
7	23	47.48	34.420	7.177	32.59	62.36	10	136
8	31	43.97	29.147	5.235	33.28	54.66	8	131
9	20	45.70	26.519	5.930	33.29	58.11	7	91
10	23	35.30	25.079	5.229	24.46	46.15	4	124
11	13	73.23	35.766	9.920	51.62	94.84	20	144
12	61	45.46	26.735	3.423	38.61	52.31	5	163
Total	363	48.24	29.916	1.570	45.15	51.33	3	163

Table 4.35. Levene's test of homogeneity for variances in participation in training

Levene statistic	*df*1	*df*2	*p*
1.121	11	351	.343

A one-way ANOVA model was estimated to investigate training differences between regions. The results, presented in Table 4.36, showed significant differences in the amount of board member participation in training between the regions ($F = 2.386$, $p = .007$).

Bonferroni post hoc tests were conducted to determine where the significant differences exist. Results revealed that region 10 was significantly lower than region 11 and region 11 was significantly higher than region 10 and region 3. A more liberal post hoc test (LSD) revealed that region #10 was significantly lower than 4 other regions and that region 11 was significantly higher than 9 other regions.

Table 4.36. One-way ANOVA summary table for total participation in training

	Sum of Squares	*df*	Mean Square	*F*	*p*
Between Groups	22540.004	11	2049.091	2.386	.007
Within Groups	301430.145	351	858.775		
Total	323970.149	362			

Board member turnover

The next set of statistical tests was an attempt to examine the suggestion that differences in the beliefs of board members in Region 10 might be related to a higher level of board member turnover. To explore this suggestion, it was necessary first to determine whether there are significant differences in the turnover of board members between regions

of the state. This question was tested using stability of the board as the continuous dependent variable and regions of the state as the categorical independent variable. The null hypothesis being tested was that no differences in board turnover exist between the regions and that any observed differences in means are due to chance or sampling error. The alternate hypothesis, that at least one group is different from the others, further assumed that the boards in Region 10 have a higher rate of turnover and less stability than do the boards in other regions.

Using data available from the state school boards association, a number was assigned to each district representing the total years of board experience represented on the board during the 2003-2004 school year when the survey was taken. Group means and standard deviation of the dependent variable (total years of experience) are reported for each of the 12 regions in Table 4.37. Levene's test for equal variances, presented in Table 4.38, indicates homogeneity of variance among the groups, $p = .582$.

Table 4.37. Descriptive statistics for the dependent variable: total years of board experience represented on the local boards in each region

					95% CI for Mean	
Region	*N*	Mean	Std. Deviation	Standard Error	Lower Bound	Upper Bound
1	25	26.08	13.146	2.629	20.65	31.51
2	13	27.54	10.276	2.850	21.33	33.75
3	49	21.57	13.218	1.888	17.77	25.37
4	22	25.00	13.137	2.801	19.18	30.82
5	33	29.06	14.164	2.466	24.04	34.08
6	54	22.37	11.589	1.577	19.21	25.53
7	24	23.33	12.896	2.632	17.89	28.78
8	31	23.94	11.132	1.999	19.85	28.02
9	20	23.80	10.812	2.418	18.74	28.86
10	24	24.88	15.372	3.138	18.38	31.37
11	13	24.69	9.096	2.523	19.20	30.19
12	62	25.74	16.675	2.118	21.51	29.98

Table 4.38. Levene's test of homogeneity of variances for board stability

Levene statistic	*df*1	*df*2	*p*
.802	11	358	.638

A one-way ANOVA model was estimated to investigate differences in board stability between regions. The results, presented in Table 4.39, showed no significant differences in total board experience (board stability) between regions ($F = .858$, $p = .582$). Without significant differences in board stability between regions, it would not be reasonable to assume that the differences in beliefs of the board members in region 10 are due to a higher rate of board turnover and less stability.

Table 4.39. One-way ANOVA summary table for total board experience

	Sum of Squares	*df*	Mean Square	F	P
Between Groups	1690.961	11	153.724	.858	.582
Within Groups	64117.212	358	179.098		
Total	65808.173	369			

Achievement of students

Another variable integral to this line of inquiry but beyond the scope of this particular study is the achievement of students in each region of the state and whether or not there is a relationship between students' achievement and the beliefs and actions of the board members. If significant differences exist between board members in region 10 and board members in other regions, the question arises as to whether there are significant differences in the achievement of students in that region as well. A recent study at Iowa State University

(Haddad & Alsbury, 2006) used spatial statistics to examine student performance in reading and mathematics and revealed that there is a significant spatial autocorrelation between student performance in neighboring school districts that was not captured by the covariates (teacher experience, enrollment, class size, percentage in poverty, cost-per-pupil, teacher salary). Spatial autocorrelation occurs when there is similar student performance among school districts that are close together in location. The spatial autocorrelation can be either positive (spatial clusters of high-performing districts close to other high-performing districts or low-performing districts next to other low-performing districts) or negative (spatial clusters of low-performing districts close to high-performing districts or high-performing districts close to low-performing districts).

The researchers in this study asked whether spatial effects (geographic location/context) matter when examining the performance of students in school. The Moran Scatter Plot depicting the results of these tests showed that a majority of the school districts in this state are in quadrants HH (high next to high) and LL (low next to low). The positive spatial autocorrelation in the distribution of student performance in mathematics (and later repeated for reading with similar results) ($p < .001$) provides evidence that location of the school district matters for student achievement in schools.

The results of this study provided an opportunity to examine whether the beliefs of board members in the various regions of the state might be related to the achievement of students in those regions. Since board members in region 10 had the largest number of beliefs that differed from the beliefs of board members in other regions, the question arises whether student achievement in that region also is lower than student achievement in other regions. Using the Moran Scatter Plot Map of all school districts in the state from the Haddad and

Alsbury study (2006), a new map was drawn showing the regional boundaries for each of the educational service agencies with the school districts color-coded indicating the quadrant from the autocorrelation (HH, LL, HL, and LH). The new map made it easy to calculate the concentration of high- and low- achieving districts in each region. Region 10 had the highest concentration of low performance on the 8th grade mathematics sub-tests of the state basic skills assessment. The percentage of low-performing districts within each region of the state is provided for comparison in Table 4.40.

Table 4.40. Percentage of districts in each region that were low-performing on the state tests of basic skills for 8th grade mathematics

Region	1	2	3	4	5	6	7	8	9	10	11	12
% of Districts	42%	31%	48%	41%	30%	35%	30%	55%	70%	91%	62%	52%

Summary

This part of Phase 2 of the study provided information related to the second research question: Do some contextual factors and characteristics have more influence on the board members' beliefs about their roles and responsibilities for improving student learning? MANOVA/ MANCOVA statistical methods provided evidence that the size of the district, the length of time the board member had been on the board, the amount of time the board member spends on board work each month, and the level of education of the board member did not predict their beliefs about their role for improving achievement. These tests also provided evidence that age, gender, and whether or not a board member has children in school may influence their beliefs about their role. However, what seemed to matter most was the region where the board member lived. In addition, the board members in one region

of the state responded significantly lower to the survey items than did board members in most of the other regions.

To rule out other factors that may be impacting board members in this region, statistical tests were used to examine other ways the regions of the state may be similar or different. No significant differences were seen between the regions that could be attributed to the financial health of the school districts nor to the stability of the local school boards. Some differences were seen that could be attributed to the board members' participation in training, with the board members in region 10 participating in less training than did board members in other regions. Some differences were seen that could be attributed to the percentage of students with low SES backgrounds, but region 10 was not the region with the highest percentage of students in poverty. In addition, a related study conducted at Iowa State University provided some evidence that the highest concentration of low-achieving districts within the state is within region 10.

In this phase of the study, region 10 became an area of interest when attempting to identify contextual factors and characteristics that may influence the beliefs of board members about their roles and responsibilities for improving student learning. For this reason, the second part of this phase of the study was an introductory qualitative study of the board members from two districts within this region.

Data Analysis for Phase 2 – Part 2 of the Study:

Qualitative Analysis of Board Member Interviews

The purpose of this section is to present a summary analysis of information that was collected during interviews with board members and superintendents from two districts in

Region 10. Analysis of the data in Phase 2-Part 1 revealed significant differences in the beliefs of board members from this region that could not be explained by factors such as the length of time board members had been on the board, the size of the district, the level of education of the board members, the time they spend each month on board work, the financial health of the school district, the socio-economic background of the students in the schools, or the combined experience of the board members serving on the local boards. Examining these differences more closely would require a more interpretative approach than the statistical procedures used in the data analysis so far.

The purpose of the study was to understand the perceptions of the board members about their roles and responsibility for student learning and the factors that might be influencing their beliefs in this area. With that focus, the board members and superintendents from two districts in region 10 were contacted and one-on-one interviews were scheduled with the people who were willing or available to participate. The districts were selected based on the number of school board members that participated in the survey and the number of board members still retaining seats on their board that were serving at the time the survey was administered. A brief profile of the participants in Table 4.41 shows that a majority of the board members were between 35-54 years of age, male, did not have children in school, and had served on their board an average of 8 years. They indicated they spend approximately 6½ hours per month on board work and the superintendents did not report any more time spent with board members, on average, than the board members reported they spend on board work. Most of the participants thought they had completed the online survey or did not remember for sure whether or not they had taken it. Only two board members thought they had not taken the survey.

Table 4.41. Participants in the Phase 2 interviews

Part. #	Dist	Yrs. on Bd	Time per mo.	Gender	Chld in Sch.	Age	Occupation
1	A	<1	6-10 hrs.	M	N	35-54	Unknown
2	B	9	4-6 hrs.	M	Y	35-54	Mechanic
3	A	10	10-20 hrs.	M	N	35-54	Sales
4	B	4	5-10 hrs.	M	Y	35-54	Financial Agent
5	B	4		M	Y	35-54	Teacher
6	A	4	5 hrs.	M	N	55-64	Superintendent
7	A	12	6-10 hrs.	M	N	35-54	Engineer
8	A	4	5-10 hrs.	M	N	55-64	Higher Ed.
9	B	13	2-3 hrs.	F	Y	35-54	Social Worker
10	A	14	5-8 hrs.	F	N	35-54	Homemaker
11	B	8	3-4 Hrs.	M	N	55-64	Superintendent

District profiles

The interviewees were selected from two school districts in a mid-western state. This state is divided into twelve regional educational service areas and both of the participant districts are in region 10 which serves 23 of the state's public school districts. District A is located in a community of approximately 10,000 and serves almost 1500 students. District B is located in a community with a population of approximately 4,000 and serves nearly 700 students.

All of the board members are elected at-large in District A. In District B the board members are elected by director districts with only the residents of each director district able to vote for the candidates representing that area.

The achievement of students in the two districts is very similar to each other at the elementary level and both districts are similar to the state average. At the secondary level, District A outperforms District B on most assessments and both districts are below the state

average. Figure 4.6 provides a comparison of the two districts and the state average using publicly available data from the Department of Education website.

Data collection and analysis

Data for this phase of the study were collected through semi-structured individual interviews of approximately 60 minutes in length. An interview guide (Appendix D) was used to ensure there was consistency across interviews and maintain the focus of the study. The interviews were audio taped and transcribed for analysis. Each transcript was read multiple times by the researcher, coded, and compiled into a matrix organized around specific areas to be examined. Emerging themes were then identified for each area. The areas

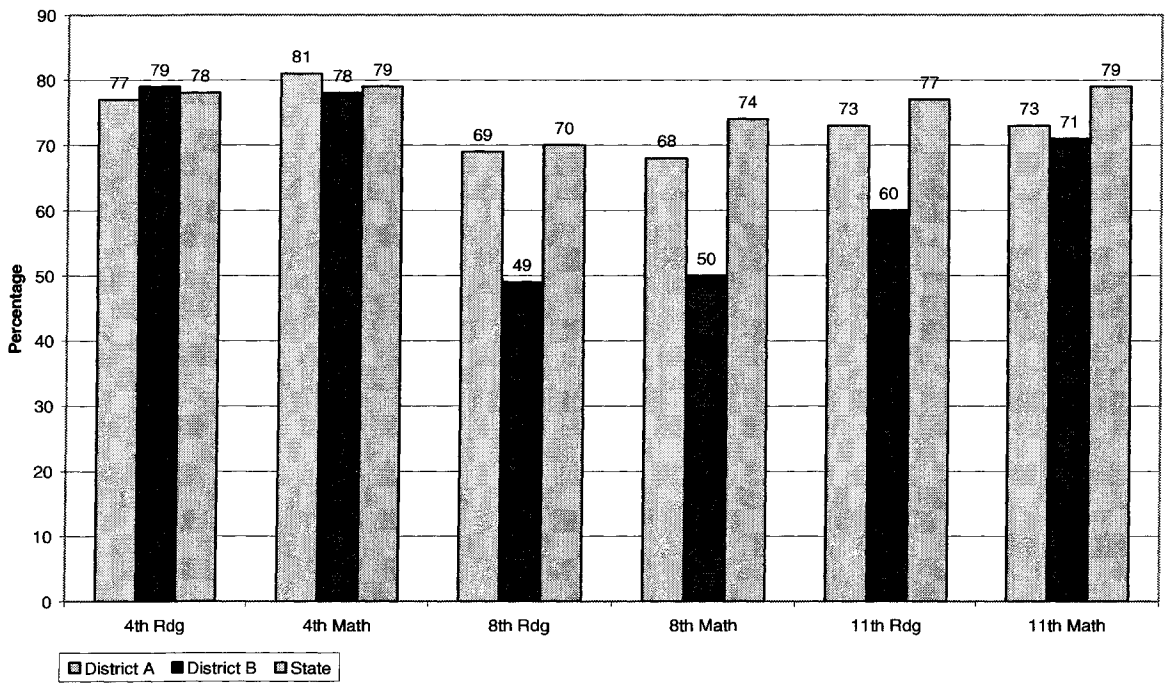

Figure 4.6. Student proficiency in the participant districts compared to the state average

were defined based on the data analysis in Phase 2-Part 1 where significant differences in beliefs were observed from the participants in region 10 related to professional development, focus, and the connection to the community. The focus areas for the matrix analysis included the three areas mentioned above as well as related areas that could aide in making sense of the board members' perceptions and factors influencing them. This analysis identified emerging themes related to: (a) how board members define their role/how the superintendent defines the role of the board; (b) what board members rely upon to carry out their role; (c) what they say about professional development for staff; (d) what they say about the importance of focus; (e) what they say about community; (f) how they describe the achievement of students in their district; (g) indicators of the board/superintendent relationship; and (h) what they understand about what it takes to improve achievement.

This qualitative analysis of nearly 300 pages of transcribed board member conversation was treated as a pilot study from which further inquiry and analysis should follow. The scope of the current study did not allow for the depth of analysis that would be necessary for more specific interpretations or drawing and verifying conclusions. Therefore, these data can best be used to identify areas of interest that might become a catalyst for further study. The following section will provide a brief description of the initial observations and major themes that emerged related to each area from the perspective of the board members. When appropriate, comments from the superintendents will be shared to add meaning to the board members' comments or for contrasting the perceptions.

Role of the board

Three main themes and two lesser themes related to how board members defined their role for improving achievement surfaced in the comments of the board members. The most frequently described role, mentioned to some degree by all but one of the board members, was the need to hold staff accountable for performance and apply pressure for improvement. Fulfilling a role as the *"watchdog"* for the district and providing support were other roles discussed by most board members. Each of these themes about the role of the board will be discussed in the following sections.

Pressure for accountability

In most cases, the role of applying pressure was discussed in the context of *"needing to push administrators out of their comfort zone,"* making sure teachers are being held accountable by the administrators, and more rigorous evaluation of the superintendent as opposed to *"flipping a coin"* as they do now. One board member repeatedly emphasized the need to "push" the administrators:

> *I think some of the leadership, and I know I keep going back to this, but we need to get a little pushy sometimes with our administrators who sometimes get a little lax. . .and we tend to get a little pushy with them.*

and another board member from a different district expressed a similar need:

> ...somebody has to take responsibility and everybody just points fingers every *other which way. I'll take my part of the responsibility that maybe I'm not pushing hard enough to see that things get done.*

Watchdog

Another theme that emerged was the feeling they needed to assume a role as a *"watchdog"* or *"whistle-blower"* within the district. In one district the watchdog role was

defined as more of an oversight role to *"safeguard funds"* or *"keep the focus on kids."* However, in the other district where the relationship between the board and the superintendent seemed much more contentious, this role was described as more confrontational with an expressed feeling they needed to ask tough questions, challenge purchases, and confront inconsistencies:

> *...they knew it was important to us because that's the reason why they're bending the numbers. . .it wasn't positive. Nothing had really changed, it was just cosmetic. We won't move beyond this unless we confront it.*

Support

The third theme that emerged, mentioned by every board member, related to providing support to the district. Support was defined primarily as *"providing staff with the tools they need"* or *"approving requests"* but it was also described as recognition, encouragement, and showing interest in what is happening in the schools. In a more negative context, support was also defined as "rubberstamping" administrative recommendations:

> *The administration always says "don't micromanage" and they throw those words around so we can be very standoffish and we don't really make strategic decisions and recommendations. We just rubberstamp, you know, recommendations from the administration. We review policies and sign off on them, but we don't really do. . .what a board needs to do.*

Additional themes about the role of the board

Two other roles surfaced from multiple board members but were not mentioned as frequently as the previous descriptions of their roles. These areas were: (a) setting direction; and (2) being a voice for the public. The comments describing their role in setting direction ranged from discussions about policy, strategic planning, and setting goals to comments about voicing opinions, making suggestions, and asking questions related to new alternatives.

Assuming a role as a voice for the public was only mentioned by two board members and each board member had a different perspective. One board member talked extensively about being a sounding board for disgruntled parents, especially those who are from low socio-economic backgrounds and *"often feel intimidated by the professional staff."* The other board member talked more about the need to represent the community *"interests and concerns"* at the board table.

Uncertainty about the role of the board

As board members responded to questions about what was most important for boards to do for improving student learning, it became very obvious that there was an expressed and shared lack of understanding of what their role should be in this area. The board members who were interviewed seemed committed to making a positive difference for students in their school but they also expressed frustration that they didn't believe they were having much impact:

> *Being on the board is, to me, more frustration than it is satisfaction. I shouldn't say that I don't get satisfaction out of it, but again, like I said earlier, every time I go to a board meeting I'm asking myself, why am I doing this? Am I really effective? Am I doing what I need to, what I should be doing?*

Another board member talked about the board's vulnerability for being *"led"* because they don't understand their role:

> *Our board doesn't understand exactly what its role is. Exactly what powers it has and doesn't have. And we really don't, I think, don't know. . what's the word I'm looking for. . .you know, procedurally how to do it and how to go about it. It's just, we've always been led and just said, "Yea, OK, you bet, whatever you say." You know, I don't think that's what we need but we don't know anything else.*

This uncertainty about what the role of the board for improving student learning in conjunction with a concern about being overly *"led"* or being perceived as a *"rubberstamp"* board seemed to lead board members to conclude that to be effective as board members they would have to acquire a certain amount of educational expertise.

Expressed need for expertise

A final interesting observation from the comments of the board members about their role was a perception that board members needed to have an educational background to be an effective board member. One board member expressed concern he didn't have the time to become the *"expert"* he would need to be to have an impact. Another board member with a background in education commented that she relied on her background to make a difference on the board. Still another "educator" board member said he ran for the school board rather than the city council because of his educational background which would give him an opportunity to make a contribution. A feeling that board members need to have expertise in education to function effectively in that role may be tied to a lack of understanding of what that role should or could be. They didn't mention that legislators or mayors or council members needed expertise in government or city management to be elected to those positions so it was interesting to note they expressed that concern about school boards. Could it be that there is more universal understanding of the role of other elected officials than there is for locally elected school board members? A hint of what the public may understand about the role of local school boards could be heard in the voices of the school board members as they defined their role and expressed frustration about their own understanding of their role. It

could also be heard in their voices as they described what influences them as they play out their role.

What influences board members as they carry out their role

Board members identified a number of resources that they rely upon when making decisions or that influence their decision making process. A list of the areas that surfaced repeatedly in the board members' comments as well as the number of board members who mentioned that area are provided in Table 4.42. It was interesting to note that the areas mentioned by the superintendents were very similar to the areas mentioned by the board members with the exception that the superintendents viewed the boards as being much more influenced by public opinion than the board members themselves reported.

Table 4.42. What board members say influences their decisions

Mbr #	Influence from…
9	Professional experts, administrators, presentations from staff
6	Cardiac data, what they think or feel, opinion
6	What they hear from their own children or their friends about school programs, teachers, what's working
6	Fear (fear of backlash, fear of change, external pressure, sanctions/NCLB, community status) and conflict (factions on the board, lack of confidence in administration)
5	Other board members and their discussions at the board table
5	External training, journals, conferences, conventions, information from their association
4	Individual effort to learn
4	Models – what other districts are doing
3	Precedent, norms of behavior, what board members want to hear or expect to hear
2	Funding
2	Public comments, comments from parents, etc.
2	Data

Achievement of students

Each participant was asked to talk about the achievement of the students in their schools and was prompted to be as specific as possible. Each of the board members and superintendents were very unclear about student achievement and whether or not it was improving. Only two of the interviewees, both board members, were able to reference data in their comments about their students' performance: *"52% of our 11th graders are not proficient,"* and another board member said *"we tend to run about the 40th percentile."*

Without the ability to rely on data to describe the achievement of students in their schools, the board members and superintendents explained student performance in terms of (a) discipline, (b) post-high school pursuits, (c) graduation rate, and (d) their individual perception or opinion about what's happening in this area. Quotes from the board members and superintendents are included in Table 4.43.

In addition to being very uncertain about the level of student performance and vague in their descriptions, several participants mentioned the effect of poverty on their achievement:

Poor economy and test scores go hand in hand.

And another board member who worried that the attention on the lowest performing students would exclude the students in the middle:

. . .special education and lower income kids are well represented legislatively.
. .the middle voice just isn't heard.

Table 4.43. Interview quotes related to student achievement

Role	Quote
Board Members	*"Actually, achievement is not too bad. I think we've improved. I know that we have improved graduation rates, that kind of thing."*
	"The discipline is better and also I think that the results are better – because the discipline is better. I think that goes hand in hand with test scores."
	"Yes, achievement is improving. I think they are better prepared for college. But we actually have fewer kids going on to college. I think they drop because of cost."
	"Academically, we're not excelling at anything."
	"Yes, it (achievement) is changing. We were exposed to how students are using computers. . . .The students were having fun with it – it was like a video game."
	"Scholastically I think we are just holding our own."
	"I don't see a lot of things besides the dropout rate that we can really truly be proud. You know, we're just kind of treading water, I guess."
Superintendents	*"Achievement? Well, we're not on any watchlist!"*
	"I think we have made excellent progress in our district. Staff makes sure students are moving forward. We've made progress in that area to the point that we're not on the watchlist at all. We were on the watchlist but that's no longer the case so we've seen some excellent improvement."

Board members and superintendents alike mentioned the *"watchlist"* as a gauge for how well their students were doing:

> *Well, I don't know about achievement. We're not on any watch list or anything for No Child Left Behind, so we're doing at least that good.*

Survey differences

Five items on the survey generated significantly different beliefs from board members in region 10 than board members in other areas of the state. These five items asked about the importance of specific board behaviors in relation to professional development, the importance of establishing a focus for improvement, and the importance of establishing a connection with the community. If board members did not mention any of these areas in

response to the open-ended questions, specific prompts were used to elicit beliefs and understandings about these three areas.

Professional development

Despite specific prompts, very few comments were made about professional development. Board members recognized that *"teachers are key"* and one even mentioned that *"teaching is outdated"* but no one talked about the importance of professional development as a means of improving instructional practice in the classroom. The few comments that were made expressed a wide range of feelings about the importance of professional development:

> *...professional development I think is huge. You know, whatever we can do to encourage some professional development will be big.*

This sense that professional development is important and should be "encouraged" was contrasted by other comments of board members who shared reservations about the importance:

> *I think it's probably important but we just can't shut down early all the time!*

None of the board members described what was or should be happening during professional development and many only mentioned it in relation to the time they currently allocate or the lack of time they have for professional development. Two board members mentioned the need for more collaboration and less isolation among staff and could see that professional development would be a way to encourage that. Neither one of the superintendents discussed professional development during their interview. When asked to identify what is contributing to the change in achievement (or what it would take to change achievement), none of the participants named professional development as a factor.

Focus for improvement

The focus for improvement was most frequently described as improving the dropout rate or improving discipline. When achievement was mentioned as a focus for improvement, it was discussed in very general terms:

Achievement is a priority.

Achievement has been a focus since NCLB.

I'm thinking probably reading has been a big thing.

When asked about goals, none of the interviewees could identify the specific improvement goals even though most of them thought the district had improvement goals:

> *Yes, I know we have improvement goals. I can't tell you exactly what numbers and what grades or anything, but I know we do.*

> *I think our goals for this year are to improve test scores. . .*
> *No, we don't have goals that anyone knows about.*
> *You know, every year we set goals, but to me, they're kind of wishy-washy, kind of fake goals, you know, like improve the dropout rate. Well, let's give a little more guidance than that. You know, you can improve the dropout rate just by how you count it. . .so. . .another thing we need to do is establish better, more rigorous goals. . .*

Community connection

Comments about the school's connection to the community seemed to fall into two main categories: comments about the community's responsibility for connecting with the school and comments about what the school was doing to try to connect with the community. Many board members expressed concern and frustration about a *"lack of community interest in education."* They described the community as apathetic and only involved in the schools if their children are involved. One frustrated board member said,

> *And I told them, they let some of this stuff happen. If no body is stepping up to the plate, well, then you deserve what you get. You know what I mean? If you don't vote and don't sound off and tell people that you don't like what's going on, and you accept it – then whose fault is it?*

Other board members described the apathy or lack of involvement as satisfaction:

> *I think the community connection is good. When people see you on the street they don't have any problem letting you know if they have a problem. No news is good news.*
>
> *I think a lot of the apathy is that we're not doing anything really bad, so. . .if something really bad is going on, I think they'd probably come to us.*

When describing measures the district is taking to improve the school's connection to the community, board members mentioned things such as a community survey, improving communication with the community, and increasing opportunities to get involved.

What it takes to improve achievement

The board members were asked to identify what was contributing to the improvement in achievement in their district. (What would it take to improve achievement or what is contributing to the change in your district?) The top three responses of the board members, mentioned by almost everyone were: (a) new programs, (b) grants, and (c) technology. Other areas, mentioned by only one or two participants, included: (a) staff effort, (b) teacher evaluation, (c) use of data, (d) external threats, (e) different and/or better staff, (f) raising graduation requirements, (g) improve discipline, (h) class size reduction, and (i) initiatives. The comments of the superintendents were similar to the board members with the addition of a comment made by one superintendent who discussed the need for public support in order for improvement to occur:

> *It's kind of like in a marriage. If constantly everything that you hear is how terrible you are and how God-awful you are, the odds are that you're probably not going to feel too good about the marriage and the things that are*

going on in it. If you hear the number of things that you're doing well and how much you're cared about and appreciated, there's a good chance that the student achievement, or the end result that you're after in a school or a marriage, is going to become a lot better.

Relationship between the board and the superintendent

The relationship between the board and the superintendent in the two districts appeared to be based upon different levels of trust and confidence. Even though the relationship was different, one district expressing much higher levels of dissatisfaction than the other, the board members from both districts described similar characteristics they believed to be important for the chief administrator of their district.

The board members consistently described the need to have a superintendent that would be a take-charge person who would actively hold people accountable and solve problems within the district. For example, four different board members made the following comments:

...a take-charge kind of guy, you know, make the administration be accountable for their actions with the staff, with the teachers and stuff.

...we need the superintendent to shake things up! To be familiar with the new regulations. . .the new things that are demanded of teachers and administration. That can come in and add a shot of energy. We've got some real issues that we need to address but we need more accountability at all levels.

I think the biggest thing is that there is accountability of the people who work for (the superintendent & the district). . .it's been pretty lax. I don't think that people have been pushed to increase things.

...a superintendent who is very regimented, very structured, very data-driven, and expects a lot from his people.

They want a superintendent who will share information openly and honestly and involve board members in a meaningful way. These comments of the board members in this

area seemed to either express a sincere desire for more involvement or a considerable mistrust that grew out of a lack of involvement.

> *Our superintendent keeps us informed and stuff, whenever there's a situation that comes up, he'll get on the phone and call each of us. But. . .wish he would get the board* ***involved*** *a lot more (emphasis from the board member). Have studies. . .read certain books. . .and after each meeting go over the chapter we just read. I think that would be good.*
>
> *I've been left out of the loop because I'm thinking that I'm – I'm kind of like in the wrong punch bowl sometimes because I ask questions. I'm not trying to be malicious but I think that sometimes they just don't want us to know certain things. I think we are only given the information that the superintendent wants us to get. There are a lot of issues and we are led to believe one thing. . .but things can't be this good. When you hear all this other stuff in the background, how things aren't, people aren't pleased and so forth. . .when you hear more negative than positive, you know it can't be right.*
>
> *I'll be honest, sometimes we ask for. . .information, and . . . sometimes we just haven't gotten it, for whatever reason, it hasn't been done. Or it's been put off for another month.*

They want a superintendent who is data driven and focused on what's best for kids. While many board members talked about being *"data-driven"* within their district, very few referenced data, talked about monitoring goals using data, or taking corrective action when data indicated they were not making progress. Similar to other areas, the board members talked more about how they think things "should be" as opposed to how they were actually working at the time.

> *I think our board is pretty good about focusing on what's good for all kids...really does a good job of being interested in what's the best move for kids, but honestly, that hasn't always been the focus among administration.*
>
> *We'd really be excited about looking at data more. The superintendent should be big on board education, work with us and explain it in detail.*

The superintendents from the two districts described their boards from different perspectives. Both superintendents discussed the important role of the board in supporting the actions/recommendations of the district. In one district the superintendent described his

board as knowledgeable, dedicated, committed, and open to new ideas. Likewise, the superintendent in the other district described his board as dedicated and committed but also explained how difficult it is to keep his board "in line."

> *When you have board members who don't have a clue about the operation and why changes are being made, stepping in to listen because somebody called them...then listening to what's being said and telling the staff that they're going to fire the elementary principal. Then it gets back that I'm not being supportive. ...You get to a point rapidly where the issues. . .go out the window and you're trying like crazy just to keep them in a position where they're doing what they need to be doing.*

In a later comment his frustration became even more obvious:

> *When I see on the front page of the local paper my board vice president saying the students in the district. . .will be totally unprepared for college-level math. . .the odds are pretty good that the perceptions towards your district are not going to be real positive. ...I'm so tired of trying to carry the positive load that I could just about upchuck!*

The relationship between the board and the superintendent has been the subject of study and controversy for some time. While some authors emphasize the need for a positive relationship (R. Goodman *et al.*, 1997a; R. H. Goodman & William G. Zimmerman, 2003; Speer, 1998b) others have shown that a positive relationship isn't enough (Joyce et al., 2001; LaMonte et al., 2005). These interviews shed some additional light on the mutual trust, respect, and interdependence that may be necessary for board/superintendent teams to effectively lead their districts.

Summary

This section of chapter 4 reported information from 11 interviews with board members and superintendents in region 10. Participants were asked open-ended questions about their role, what influences them as they play out their role, the achievement of students

in their schools and what it would take to significantly improve achievement. In addition, the interviewees were prompted with questions about professional development, the focus for improvement, and the community connection to the school if they did not mention them in response to other questions. An inductive process and matrix analysis was used to identify the emerging themes that were reported here. This component of the overall study is considered a pilot effort to identify areas that may warrant further analysis or extended study.

Summary

Chapter 4 provided a detailed analysis of the quantitative and qualitative data collected in this study. Chapter 5 will present a summary and conclusions of the study with recommendations for future research into contextual factors and characteristics that influence the beliefs and actions of board members about their roles and responsibilities for improving student learning. Recommendations focus on the relationship of these beliefs and actions with the school cultures to enable continuous improvement of student achievement.

CHAPTER 5: SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

This purpose of this study was to examine board members' perceptions about their roles and responsibilities for improving student learning and examine contextual factors and characteristics that influence those beliefs. The study involved both quantitative and qualitative methods of analysis and the results surfaced several areas that shed light on potential needs for strengthening the link between school boards and the achievement of students. Chapter 1 introduced a line of inquiry into key linkages between the policy makers that guide local school districts and the outcomes for students in the schools. Excellence and equity of student achievement was presented as the key problem facing public education. The role of the board for establishing district-wide priorities to improve student learning, holding the system accountable to the district-wide priorities, creating conditions necessary for improvement, and building commitment to district priorities, were presented as key responsibilities for solving the problems of public education. Finally, understanding the perceptions of board members about these roles and responsibilities was defined as the purpose of this research effort and two research questions were presented as a focus for the inquiry:

1. Which governance roles and responsibilities do board members believe are most important to positively impact student learning in their school districts?
2. Do some contextual factors and characteristics have more influence on the board members' beliefs about their roles and responsibilities for improving student learning?

Chapter 2 provided a review of the literature regarding the roles and responsibilities of local school boards. This chapter included an overview of the long standing confusion about the specific role of local school governance, a brief history of school boards, and various theoretical models related to the roles and responsibilities of school board members. Chapter 2 concluded with an explanation of the research questions which focused the study on a key linkage between the governance of schools and the learning of students in classrooms—the beliefs of board members about their roles and responsibilities for improving student achievement. This linkage was then described further in Chapter 3 as the different phases of the study and the procedures for collecting and analyzing data were explained.

Chapter 4 provided a detailed analysis of the data collected during each phase of the study. This analysis of the data revealed an area in the state where board members: (a) expressed lower expectations for their roles; (b) placed less importance on specific responsibilities tied closely to improving student achievement; (c) appeared to have a very limited understanding of what is required for systemic change of student learning; (d) participated in less training; and (e) the achievement of students was lower than other parts of the state. In addition, each participant revealed: (a) a shared uncertainty and lack of confidence about the role of the board for improving achievement; (b) a concern about separating their role from the role of district staff; (c) a lack of concern about the school community connection; and (d) a perceived need for educational expertise to make a meaningful contribution in their role as a board member.

The purpose of this chapter is to highlight each of the areas that surfaced during the analysis of data and initiate a discussion of these areas in an effort to influence further study

of school board roles and the factors that impact board members as they carry out these roles. Chapter 5 begins with a summary of the research which is followed by a review of the key findings and implications for board leadership. Limitations of the study as well as recommendations for practice and further research are also discussed. It is hoped that this research, and the research that follows, will ultimately clarify the critical leadership role of the board for ensuring excellence and equity in public education and create a continuum of linkages that justifies a new model for judging the effectiveness of lay boards.

Throughout this research effort, critical issues related to improving student achievement surfaced. No one denies that educational improvement of student learning occurs in the classroom. However, some teachers generate higher student achievement than others (Brophy & Good, 1986) and, in a number of cases, dramatically higher (Sanders & Rivers, 1996). Some schools generate higher achievement than others (Brookover et al., 1978; Mortimore et al., 1988) and, in a number of cases, dramatically higher (Harkreader & Weathersby, 1998; Weil et al., 1984). Some curricula and instructional methods generate higher achievement than others (Bloom, 1984; Slavin et al., 1996; Wang et al., 1993) and, in a number of cases, dramatically higher (Joyce et al., 1999). In addition, some school boards generate higher achievement than others (Goodman et al., 1997a) and, in a number of cases, dramatically higher (Coleman & LaRocque, 1990; Joyce et al., 2001).

The research clearly shows that classrooms and schools where abnormally high achievement occurred were supported through better educational environments than others where continuous school improvement was not implicitly and/or explicitly encouraged. Common conditions within the school environments associated with higher levels of achievement included:

1. An emphasis on building a human organizational system, a self-renewing professional community with appropriately shared decision making (Fullan & Stiegelbauer, 1993).
2. A shared understanding of how education gets better, and how to make and sustain improvement initiatives (Joyce, 1995; Wallace, 1996).
3. A sense of how to create support around personnel as they carry out their roles (Glickman, 1993).
4. An understanding of how to build a professional development component for improving the knowledge and skills of personnel (Joyce, 1995).
5. A sense of how to support school sites in the renewal process (Calhoun, 1995; David & Peterson, 1984; Huberman & Miles, 1984, 1986; Joyce et al., 1999; Wallace, 1996).
6. A sense of how to generate community involvement (Comer, 1988) .
7. A sense of integrative leadership for developing direction and focus from a realistic perspective (Deming, 1982; Drucker, 1994; Lewin, 1947).

These conditions characterized the schools with higher levels of achievement. If school governance is to be judged by the outcomes of schooling as opposed to the degree they satisfy all public demands, then it becomes reasonable to assume that understanding the board's role for explicitly or implicitly developing these conditions is critical for school leaders. Clarity about the leadership roles necessary for generating conditions associated with productive change can affect the culture of schools in ways that consequently improve student learning for all students.

Findings and Implications

Two research questions provided the framework for this investigation: (a) Which governance roles and responsibilities do board members perceive are most important for positively impacting student learning? (b) Do some contextual factors and characteristics have more influence on the board members' beliefs about their roles and responsibilities for improving student learning?

Beliefs about the importance of specific board behaviors

The survey indicated that board members believed each of the behaviors described in the survey was a more important aspect of their role than superintendents believed the behaviors were. Board members believed they spent more time in board meetings and work sessions than superintendents perceived board members spent, and there was little or no relationship between how important board members believed certain behaviors to be and how much time they spent doing them. Board members with lower expectations for their role talked more in terms of what they "should" be doing rather than how they were currently playing their role, and expressed dissatisfaction with their current level of functioning. This dissatisfaction seemed to be rooted in perceived limits to their performance placed upon them by the current administration. When the superintendent was not enhancing the leadership of the board, the board members felt helpless to change their role without a change in personnel.

The board members believed the most important board behaviors for improving student achievement were: (a) discussing student learning in their deliberations; (b) expressing a belief that staff could impact student learning; (c) ensuring strong leadership within the district; and (d) adopting long range goals. There is general agreement that these

are important governance behaviors, however, these behaviors could also be considered more passive than the behaviors board members identified as being the *least* important: (a) establishing criteria to guide actions; (b) evaluating the results of professional development for improving student learning; (c) establishing and communicating a singular focus for improvement; and (d) adopting procedures for informing the community about student learning progress.

The conditions for change, discussed previously, are characteristic of school cultures that improve student achievement. Assuming board/superintendents teams are critical for ensuring those conditions are present throughout the system, then school boards will need to know more about the conditions that enable change, and must be willing to take an active leadership role for ensuring these conditions exist within the system.

Need to know more about district efforts to improve

The need to know more about work inside the district without becoming professional educators has created an ongoing dilemma for school board members. In addition, school board associations, the primary source of development and support for local school boards, may actually be contributing to this dilemma. School board associations have increasingly understood the need for board members to have a better understanding of the core work within schools, and have begun integrating information about teaching and learning into their programs and services for board members (California School Boards Association, 1997; Iowa Association of School Boards, 2003 - 2004; Kentucky Institute for Education Research, 1995). However, the lack of connecting this information to specific roles of the board in relation to the work inside the district may have inadvertently led board members to believe

they are unable to have an impact on student learning if they do not have a background in education. The expressed need, from board members in this study, to have educational expertise in order to make a meaningful contribution in their role as a school board member provided evidence of a further lack of understanding about the role of the board that may have been fueled by the good intentions of those who provide board training.

Elmore (2000a) discussed the principle of comparative advantage which states that people should engage in activities that the nature of their work permits them to develop. Elected government officials have the opportunity to develop expertise in areas such as: (a) setting direction through goals and standards on what should be taught and determining priorities for improvement; (b) establishing a focus and adjudicating conflicts among competing interests; (c) setting the legal parameters within which rewards, sanctions, and support can be administered; (d) ensuring organizational structures and patterns of behavior are consistent with a culture capable of changing and improving; (e) ensuring staff members have the knowledge, skills, and tools they need to meet the expectations; and (f) translating data and feedback into new guidance. They do not have a comparative advantage on issues related to specific practices that lead to student performance, no matter what their background or expertise has been, because the nature of their governance role does not permit them to practice and develop it as a part of their functioning as a board member. In other words, expertise in education cannot help board members develop the capacities of good boardsmanship and may, in fact, be a barrier to it. The roles of governor and educator are different and neither can be practiced from the position of the other.

This does not mean that school boards should avoid matters that deal with teaching and learning. In fact, commonly held assumptions about the role of the board—that school

boards should avoid these areas—may have drawn school boards away from the very behaviors that are most likely to have the greatest impact on student achievement. Learning how to influence these areas from the comparative advantage of the governance position has been absent from the training and development of school boards and may have left board members more confused and insecure in their roles.

School board members are not professional educators and they do not need to be, but they do have important responsibilities related to teaching and learning, curriculum and instruction, and the learning environment. This does not suggest that board members need to become educational experts. However, it does suggest that board members need to develop sufficient understanding, knowledge, and beliefs in order to create the conditions within the system that will ensure professional educators can grow in their educational expertise and generate productive change. There is a need to impact the governance doctrine and assumptions that are driving the support and development of school boards. School board members need to increase their understanding of how to become dynamic leaders in the school renewal processes without "micro-managing" the system. The concern about micro-management illustrated another key issue related to how boards and superintendents perceive the role of the board.

Emphasis on separating roles

Consistent with previous studies (Goodman et al., 1997a; The Twentieth Century Fund & Danforth Foundation, 1992), there was a strong indication throughout this study that superintendents and board members alike believed there should be a clearly defined distinction between the responsibilities of the board and the responsibilities of district staff.

Since superintendents were first hired to manage the schools, boards and superintendents have negotiated their roles and vied for control (Kowalski, 2006). Board members and superintendents want to positively influence the school system on behalf of students. However, the efforts of boards and superintendents to have influence are often limited by a conflicting need to restrict the behaviors of each other. This need to establish clearly defined boundaries for each role causes the conversation about roles to focus more on how the board and superintendent should be separated rather than on how they could work together productively. More recent studies (Joyce et al., 2001; LaMonte et al., 2005) indicate that the leadership roles of the board and superintendent cannot be "separated" but must function in an atmosphere of mutual respect and interdependence in which both the board and superintendent are willing and ready to lead from different, but mutually enhancing, positions. If educational environments capable of generating and sustaining high levels of student learning are going to be created, it will be important to follow the advice of Elmore (2000a) and move away from role-based conceptions of governance and move toward a more distributed view of leadership that connects people with different areas of expertise who respect and appreciate the knowledge and skill requirements of different roles.

"The closer policy gets to the instructional core, how teachers and students interact around content, the more policy makers lose their comparative advantage of knowledge and skill, and the more they become dependent on the knowledge and skill of practitioners to mold and shape the instructional core; the more knowledge of policy and practice have to be 'stretched over' each other in order to be complementary" (Elmore, 2000b, p. 26). The closer policy gets to areas that directly affect student learning, the greater the need for board/superintendent teams to be a seamless, interdependent leadership force. This

interdependence must be grounded in mutual respect and value for the importance of each other's leadership role, not in separating and isolating the roles.

Factors that influence the beliefs of board members about their role

Factors that did not explain differences in beliefs

The second research question in this study sought to understand what factors influence the beliefs of board members about their role. Unlike previous studies investigating contextual factors that impact governance (Hofman, 1995; Hofman et al., 2002; Teddlie et al., 2000), or studies of board orientation and responsiveness (Gresson, 1976; Tucker & Zeigler, 1980), board members were not different in their beliefs based upon district size. Even though district sizes in the Midwestern state in this study did not vary as much as other states with larger metropolitan areas, the board members in the largest and smallest districts in this study were very similar in how they described the importance of specific aspects of their roles. This inconsistency with previous studies might be attributed to the fact that earlier studies focused on governance structures, community structures, and organizational structures and relationships rather than the beliefs and attitudes of board members about their role. None of the previous studied focused specifically on the perceptions of the role of the board in relation to improving achievement.

Other areas that did not have an influence on the board members' beliefs contradict culturally popular ideas about what are important characteristics of board members. The level of education of the board members in this study did not explain differences in their beliefs. Neither did their experience as board members, measured in terms of how long they had been on the board or how much time they regularly spend on board work, influence the board

members' beliefs. Newspaper accounts as well as numerous books and articles (Howell, 2005; Kossan, 2005; Thevenot, 2005) have chastised the system of locally elected school board members because, in their opinion, board members are not qualified to do their job, the frequent turnover of board members impedes their ability to be effective, or the volunteer nature of the position invites people with ulterior motives or self-serving interests to seek these positions. These popular opinions did not explain differences when investigating the beliefs of board members about their role, but further study would be required to fully understand the impact of these beliefs on board members' actions and decisions at the board table.

Factors that did explain differences in beliefs

The data revealed that certain contextual factors and characteristics did influence board members beliefs about certain aspects of their role for improving achievement: age matters, gender matters, whether or not a board member has children in school matters; but what mattered most was the geographic region where the board members resided. Most of the board members in this study were very similar in their beliefs about their role; however, the beliefs of board members from one specific region in the state were significantly different from board members in the other regions of the state. The fact that one region stood out as being different from the other regions raised the question: What factors might cause one region to differ from another?

Similarities and differences across regions. When comparing this specific region to other regions in the state, there were no differences in terms of the overall financial health of the school districts within the region that might explain the differences in beliefs. When

aggregated to the regional level, regions were very similar based on the solvency ratio and unspent balance of the districts within each region. There also were no differences in board stability across regions that could explain differences in beliefs. Differences did exist in the percentage of students in poverty between regions, but most of the significant differences based on poverty were not between this region and other regions. Therefore, the percentage of students in poverty could not explain the differences in board members' beliefs.

Differences did exist between this region and other regions when comparing the amount of training the board members received over a three-year period and the achievement of students in the schools. Further study would be necessary to understand the extent of the impact and the relationship to achievement. The fact that one region of the state had board members with lower levels of beliefs about their role, lower levels of board member participation in training, and lower levels of achievement in their schools opens the door for focused empirical studies of the relationship of these factors.

Lack of understanding about systemic change. Board members expressed a lack of understanding of system change and a shared belief that responsibilities in these areas are reserved for staff. Board members in this region were similar to board members in low achieving districts in earlier studies (Goodman et al., 1997a; Joyce et al., 2001; LaMonte et al., 2005). Areas they viewed as least important were areas shown to be critical for creating a culture with the capacity to improve student achievement—establishing a focus for improvement, understanding what it takes to develop the professionals in the system, and connecting with the community. The board members never mention these areas in their responses and were only able to discuss them in broad generalities when directly asked.

In addition, the board members in the region with lower beliefs talked about the need to push for accountability and hold people more accountable as well as being the watchdog to confront indiscretions among the staff. This stance was also similar to board members in low achieving districts mentioned previously wherein they were more likely to issue mandates and walk away as opposed to becoming partners and sharing responsibility in the process of ensuring success.

Based on the concept of distal and proximal effects on aspects of the environment that are most likely to make a difference in the development and learning behavior of students (Walberg & Walberg, 1994), researchers in the field (Fullan & Stiegelbauer, 1993; Joyce et al., 1999; Wang et al., 1993) have suggested for some time that governance processes will only have an impact on the achievement of students if they affect the conditions for change and those, in turn, affect the learning environment within the classrooms and schools. The conditions necessary for changing achievement cannot be the focus of board work if board members do not understand and value the necessity of creating those conditions, and if they do not understand how to leverage that change from their position as policy makers.

As stated previously, this again highlights important areas of need for the development and training of school leaders about the role of school governance.

Uncertainty about the role of boards for improving achievement

There were many inconsistencies in the responses of the board members throughout this study. What they said about what was important was not related to how they said they spent their time. Board members talked about specific responsibilities for improving achievement in terms of what they "need" to be doing much more often than they talked

about these responsibilities in terms of what they are currently doing. Items that were rated high on the survey were not mentioned in the open-ended comments or the interviews. Table 5.1 presents a side-by-side illustration of numerous contradictions that surfaced during the study related to the board members perceptions about their role and what influences those beliefs.

As shown in Table 5.1, the responses were set apart by conflicts and contradictions which suggest an immense insecurity and lack of confidence among board members about their role in relation to improving achievement in their schools. In addition to inconsistencies, the board members talked frequently about fears that limit their effectiveness. The source of the fear was both locally based (fear of backlash, fear of overstepping their bounds, fear of being stifled by the superintendent), and a fear of sanctions from external state and federal policy makers. Researchers (Covey, 2000; Hunter, 1976) have shown that some level of concern is necessary to generate productive action but too much concern can render people immobile. When fear is high people become less effective and tend to shut down or lash out in defense. This is not unlike the board members who described their helplessness in becoming more effective, or the board members who described increasing sanctions as a means of improving achievement. This combination of insecurity and lack of confidence about their role, coupled with notable fear of the consequences of not fulfilling their responsibilities, could explain why some boards were more suspicious of information from within the district and more influenced by opinion or anecdotal sources. Board members' trust in the system may be low because of their own lack of confidence in their role. Building shared understandings about the role of the board and clarity about how

Table 5.1. Contradictions in board members' beliefs about their role

Beliefs	Contradictions
Board members:	*Board members:*
...talked about student achievement as a key responsibility of the board.	...expressed a sense of vulnerability and lack of understanding about how to impact achievement from their level.
...expressed a fear of being overly led by the superintendent and a fear of being viewed as "rubberstamp" boards.	...indicated they rely most heavily on the superintendent and other professionals in the system in their decision making processes.
	...seemed helpless in their leadership role without an enabling superintendent.
...from one community described significant conflict that surfaced when school administrators suggested a change in how board members are elected because they wanted to stay close to their constituency.	...rated all items related to community connection lower in importance than any other items on the survey
...expressed frustration with community apathy about the education system.	
...care deeply about the achievement of students in their schools.	...could not discuss the current level of achievement with any level of specificity.
...want all children to succeed.	...expressed a belief that family background (SES) determines what can be expected in terms of student achievement
...want to make a difference. They want to make a meaningful contribution that impacts student learning.	...and superintendents have a shared consensus that boards should avoid key areas of responsibility that have been shown to impact learning outcomes.
...described how fear has inhibited their leadership role (fear of sanctions, fear of backlash, fear of conflict, etc.)	...defined their most important role to improve achievement as pushing harder for accountability by challenging and confronting staff, hiring a superintendent that would shake things up, asking hard questions, etc.
...talked about the importance of being data driven.	...did not reference data sources or mention data when talking about the achievement of students in their schools or the factors that influence how they play their role.
...consistently expressed a need to better understand their role and learn more about how to have an influence.	...do not take advantage of opportunities they have for training or interactions with other boards.
Board members expressed a desire for superintendents to involve them more and share information more openly.	...describe the most passive roles for improving achievement as the most important for boards to do.
...indicated that the professionals in the system have the greatest influence on their decision-making and how they play their roles.	When asked how they know if achievement is changing and how they judge the success of the system, the most frequent response was what they hear from their own children and their children's friends.
They volunteer for this position because they want to make a difference.	They believe they can't make a difference without educational expertise.

to play that role from the advantage of the governance position would be a critical step to reduce fears and build confidence in local school governors.

In summary, six areas of particular interest emerged from this study that warrant further examination in an effort to strengthen the linkages from the board to student outcomes: (a) a shared uncertainty about the governance role of the board in relation to student achievement; (b) a lack of understanding of systemic change in achievement and a consensus that boards should avoid areas most likely to positively impact achievement; (c) the effect of proximity and regional characteristics upon board leadership and school outcomes; (d) the emphasis on separating roles rather than integrating them to build the capacity of the board/superintendent team for effectively leading toward improved learning; (e) the dilemma of needing to know more about teaching and learning in order to become good legislators for the system without implying boards need to become administrators of the system; and (f) the implied disconnect between the community and their public schools. Increasing understanding about the knowledge, skills, and beliefs of board members as well how these impact their actions is one of the important links in the sequence of linkages illustrated in Table 5.1. Empirical studies that strengthen these linkages and guide the actions of those who support local school governors and administrators will enable the public to judge effectiveness of local boards in alignment with the purpose of public schooling and the shared demand for high and equitable achievement.

Board development and training must help boards gain footing in their role so that it is not solely dependent on the internal guidance from the superintendent. Superintendent development and training must help superintendents gain footing in the role of the board that is not dependent upon who sits on the board at any one time. School board associations must

move away from traditional training for boards and provide guidance about how boards and superintendents can interact with each other and how they can interact with district staff around educational issues and areas that directly impact student learning.

Limitations of the Study

Several factors placed limitations on the results of this study. The sample of board members was limited by the fact that it only included board members from one Midwestern state, and it and was further limited by narrowing the participant pool to board members with significant differences in their beliefs about their roles and responsibilities for student learning.

Another limiting factor was that the study was based upon information that was gathered at specific points in time rather than studying board members longitudinally to gather data about their behaviors and beliefs over a number of years. Further, the initial survey forced board members to indicate the importance of pre-selected governance behaviors rather than asking open-ended questions about what they believe to be important roles for improving student learning. This approach, while more efficient for summarizing large amounts of information, failed to ascertain whether or not board members would have mentioned any or all of those behaviors if they had not seen them as forced choice items on the survey.

The factors that explained differences among the board members beliefs about certain aspects of their role (age, gender, age, and region) did not explain enough of the difference to draw specific conclusions or guide actions. Interpretations will need to be made with caution

and the results should generate more questions for further study than answers for taking action.

There is an increased likelihood of type 1 errors when running multiple statistical tests using the same categorical, independent variables as was done with the one-way ANOVA tests in Phase 1. To reduce the chance, separate ANOVA tests were run for each item and more conservative post hoc tests were used. It is still be important to keep this in mind when interpreting the results.

As the researcher I have a responsibility to disclose any particular biases that may influence how I interpret results and draw conclusions from this study. My career has been dedicated to education, and I spent many years as a local board member and board president, as well as many years as a school and district level administrator working directly with a board. I have had the honor of working for amazing board leaders who inspired change within the district as well as working for boards where a mutual distrust between the staff and board was an ongoing barrier to change. In each of these interactions I have developed a great respect for the role of the board and an intense regard for local governance in a democratic society. These experiences served both to add passion and commitment to my investment in this study as well as create limitations to my objectivity.

Recommendations

Emerging research in the field provides convincing evidence that school boards have an important role to play in leading for improved student learning. The Iowa Lighthouse Study (Joyce et al, 2001) described differences in school districts with a history of generating unusually high student achievement as compared to similar districts with a history of low

student performance. Researchers in Canada (LaRocque & Coleman, 1993) studied school boards in districts with higher than expected levels of achievement at lower than expected costs. In these studies, the boards in high achieving districts were more knowledgeable about what was occurring in the districts, had established a clearly shared focus for improving achievement, used data and information to drive decision making and action, held high expectations for their staff and students, ensured conditions existed within the system so goals could be attained, and were public advocates for improving student learning. The behaviors of the board members in these successful districts paint a picture of what is possible in terms of effective governance.

The results of this study indicated that boards and their superintendents may not have the beliefs and understandings about the role of the board necessary to provide the type of collaborative leadership described in the studies mentioned above. The type of governance needed to create and sustain effective change in student achievement can and should be generated and supported at the board/superintendent level. Without a partnership at this level, it is possible that systemic change will not occur or, if it does occur, it may not be sustainable and will be dependent upon key individuals rather than embedded in the culture of the system.

This effort to understand the perceptions of local board members and superintendents about the roles and responsibilities of governing boards for improving student achievement and the factors that influence them surfaced several areas that warrant further consideration: (a) a clear uncertainty about the role of the board in relation to student achievement; (b) a lack of understanding of systemic change and an avoidance of board leadership in areas more directly related to teaching and learning; (c) the effect proximity and regional characteristics

have upon board leadership and school outcomes; (d) a divide between local boards and their superintendent; (e) a perceived need for educational expertise to be an effective board member; and (f) a question about the board's sense of responsibility to the larger community. Each of these areas has implications for continued study as well as development of boards and superintendents.

Eadie (2003) advocated strong board leadership as one of the preeminent keys to an organization's long-term success, and that board capacity-building must be a key responsibility of any chief executive officer. Eadie further stated that behind every high-impact governing board has always been a superintendent who is passionately committed to strong board leadership and is dedicated to capitalizing on the board as an essential organizational asset. These assumptions are consistent with reports from school districts across the country that are making significant changes in student achievement, are consistent with other research about boards and student achievement (Goodman et al., 1997b; Joyce et al., 2001; LaRocque & Coleman, 1993) and are consistent with the current work in Iowa through the Lighthouse Project (Joyce et al., 2001).

Results from this study of perceptions about the role of governing boards could be the impetus to initiate an ongoing conversation about the leadership needs of school boards and various roles and responsibilities for improving student learning. These conversations could occur at board tables as well as conferences, workshops, and conventions sponsored by the member organizations for the board members and their top administrators.

The lower ranked items in key areas of leadership indicate a need for board members and superintendents to work together to build understanding and consensus about: (a) what it will take to lead change in student achievement; (b) the role of the boards in district

leadership for improved learning; (c) the distinction between leadership and management and how that relates to the role of the board; and (d) how to build a leadership partnership between boards and their superintendents for improving student learning at the local level with support from a regional and state level. This type of leadership development could become a part of board and administrator association training and could be delivered with the support of the regional service agencies.

The role of the superintendent is different from other educational administration roles because superintendents have two distinct functions. They are not only responsible to the board for providing leadership and management to the operations of the organization, but they are also responsible to the board for ensuring the board is effective at governing and that board members find deep satisfaction in their leadership contribution to the organizational success (high and equitable student outcomes). University preparation programs, school board associations, and school administrator's associations should work closely together to ensure that these top administrators have adequate support in both areas.

Ensuring that superintendents' relationship with their boards is more of a partnership and not just "damage-control" is equally important for the relationship between the board/superintendent team and the community. The question about the board members' and superintendents' sense of responsibility to the community is an important area for further study. Again, university preparation programs, school board associations, and school administrator's associations should work closely together to study the impact of school community connections on the learning of students and define the best practice strategies for improving the connections between the community and their public schools.

There are several implications for future research that surfaced as a result of this study. Key questions for further inquiry include:

- Do patterns of low board beliefs, low participation in training, and low achievement exist in other places?
- What other contextual factors and characteristics explain differences in the beliefs of board members?
- Do board members in high achieving districts consistently describe their role for improving achievement differently than board members in low achieving districts?
- What is the relationship between board/superintendent training and the capacity for change within the district?
- What training content and methods of delivery have the biggest impact for increasing the understanding of the board role for improving achievement?
- Do board members have the same level of confusion about their role in other areas of governance as they seem to have in relation to student achievement?
- How do board members' beliefs about their role impact their decisions and actions at the board table?
- How does the training of superintendents parallel the training of boards and how does this influence their interactions as a governance team?

Final Thoughts

Throughout the country at least one-third of the students in public schools will not learn to read well enough to handle the content in their intermediate and secondary level textbooks. If nothing changes, as many as one in four students will drop out of school before

they graduate. For children who live in poverty, who come from diverse backgrounds, or who struggle with disabilities, these numbers increase exponentially. This is the most important challenge facing public education today.

School boards matter. Solving the problems of public education will depend upon the leadership of public schools (Waters & Grubb, 2004; Waters et al., 2003). Issues affecting the conditions of schools that enable productive change are issues of policy. School boards are critical players in the school change process and must be active leaders on behalf of the students in their schools. Without effective school board leadership, systemic change becomes impossible and improvement of student achievement will remain episodic with only "pockets of excellence" sprinkled throughout public schools and school districts. How board-superintendent teams understand and carry out their roles can make the difference between dysfunctional leadership teams incapable of leading change and highly effective leadership teams that build district-wide capacity to ensure every student succeeds.

Even though school boards are removed from the teaching and learning that goes on every day in classrooms, there are critical linkages between the policy makers that guide local school districts and the behaviors of those that interact regularly with students (see Figure 1.2). Efforts to improve student learning must include efforts to improve local governance of schools, not abolish it. This study focused on one of several important linkages—board members' beliefs and the factors that influence them—and was based upon the premise that improving local governance of schools is a critical first step for improving the outcomes of schools as measured by the academic performance of students in those schools.

The inquiry began with a challenge to the Decision-Output Model for judging the effectiveness of local school governance (Wirt & Kirst, 1982). If the best measure of democracy (good government) is based on the number of public demands that are satisfied, then the Decision-Output Model is a reasonable framework and Wirt and Kirst's conclusion—that school boards are not democratic, not effective and, therefore, not the best means of governing public schools—is valid. On the other hand, if the assumptions of the writers of the Declaration of Independence and the Constitution are still relevant, that mere citizens are capable of governing a nation, then researchers and educators must look deeper at the premises within that model and create knowledge for improving the inefficiencies of school boards rather than relinquish local governance of education. In his essays on governance, Philip Boyle (Phillip Boyle, 2004a; Philip Boyle, 2004b) purported that the measure of good government is not the degree to which it is able to satisfy all of the demands of the public but how well elected officials are able to keep the ultimate values of society in balance as they make decisions to solve social problems. Maintaining a balance of key public values implies that some needs will take precedence over others at various points in time. Public schools were created to ensure an educated citizenry and, thus, exist to serve the intellectual needs of a democracy. If the ultimate outcome of schooling is to be the education of the students, then school boards should be judged in relation to how well their decisions balance the needs of the system and solve problems in order to ensure high levels of learning for all of the students. Student learning should be the primary, if not the only, criterion for judging the effectiveness of the system and the governing body that guides it.

A great deal is already known about what it takes to improve the achievement of all students in classrooms and schools. Numerous studies and books have been written

describing the characteristics of more effective learning environments. Numerous examples of schools that beat the odds and produce high levels of learning for all students exist. However, less is known about what it takes to lead an entire district to high levels of learning and sustain a culture focused on excellence and equity. Until recently, school boards have been excluded from the school reform literature and excluded from consideration as a unit of change or a key lever in the change process. This study and those that follow will open the door to understanding how to help local school governance play a role that positively impacts the learning of students in their schools, not as managers of the school but as governors of the school and important leaders of systemic change in concert with their administrators, teachers, and community.

APPENDIX A. SURVEY INSTRUMENT

Please indicate the school district in which you reside (this will be kept completely confidential):

If you are an AEA board member, please indicate the AEA number (this will be kept completely confidential):

Please indicate your current role:
_____ Local Board Member
_____ AEA Board Member
_____ Both Local & AEA Board Member
_____ Superintendent
_____ Chief Administrator

Please indicate the number of years you have served on each type of board:
_____ Years on a local board
_____ Years on an AEA board

On average, how much time does your board spend in meetings and/or work-sessions each month:
_____

Please indicate the size of the school district where you reside:
_____ less than 250
_____ 250 – 399
_____ 400 – 599
_____ 600 – 999
_____ 1000 – 2499
_____ 2500 – 7499
_____ 7500+

Gender: _____ Female _____ Male

Please check your highest level of education:
_____ Did not graduate from high school
_____ High school graduate or GED
_____ Some college/post high school training (including AA or AS Degree)
_____ Bachelor's Degree
_____ Advanced Degree (MA, Ph.D., Ed.D., MD, DVM, etc.)

Please indicate whether or not you currently have children or grandchildren attending school in the district where you live: _____ Yes _____ No

Please indicate your age:
_____ 18 – 34
_____ 35 – 54
_____ 55 – 64
_____ 65 or older

Please indicate the amount of time your board currently spends on the following tasks:

Behaviors of the Board	**To what extent does your current board spend time on this task?**				
1. Discussing improvement in student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK

2. Ensuring time exists for staff to work together to improve student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
3. Developing and expressing a belief that the staff can significantly affect student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
4. Establishing criteria to guide the staff in choosing initiatives to improve student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
5. Evaluating the effectiveness of professional development for improving student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
6. Monitoring progress of student learning in relation to improvement goals.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
7. Influencing a community-wide belief that ***all*** students can and should be expected to learn the basic skills necessary to succeed in their current grade level.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
8. Mobilizing the community to support the goals for improving student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
9. Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
10. Establishing and communicating a singular focus for improving student learning (for example: a primary focus on improving reading comprehension).	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
11. Adopting and monitoring long-range and annual improvement <u>goals</u> to improve student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
12. Adopting and monitoring <u>plans</u> for improving student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK

Behaviors of the Board	To what extent does your current board spend time on this task?				
13. Adopting and monitoring procedures for regularly informing the community about student learning progress.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK
14. Discussing/reviewing legal mandates and rules related to improving student learning.	Significant Time ☐ 4	Some Time ☐ 3	Minimal Time ☐ 2	None ☐ 1	Don't Know ☐ DK

***Please indicate the importance of the following tasks for* LOCAL BOARD MEMBERS:**

Behaviors of the Board	How important is this task for <u>LOCAL</u> SCHOOL BOARDS?				
15. Discussing improvement in student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
16. Ensuring time exists for staff to work together to improve student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
17. Developing and expressing a belief that the staff can significantly affect student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
18. Establishing criteria to guide the staff in choosing initiatives to improve student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
19. Evaluating the effectiveness of professional development for improving student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
20. Monitoring progress of student learning in relation to improvement goals.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK

Behaviors of the Board	How important is this task for LOCAL SCHOOL BOARDS?
21. Influencing a community-wide belief that ***all*** students can and should be expected to learn the basic skills necessary to succeed in their current grade level.	Very Important ☐ 4 · Important ☐ 3 · Unimportant ☐ 2 · Very Unimportant ☐ 1 · Don't Know ☐ DK
22. Mobilizing the community to support the goals for improving student learning.	Very Important ☐ 4 · Important ☐ 3 · Unimportant ☐ 2 · Very Unimportant ☐ 1 · Don't Know ☐ DK
23. Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	Very Important ☐ 4 · Important ☐ 3 · Unimportant ☐ 2 · Very Unimportant ☐ 1 · Don't Know ☐ DK
24. Establishing and communicating a singular focus for improving student learning (for example: a primary focus on improving reading comprehension).	Very Important ☐ 4 · Important ☐ 3 · Unimportant ☐ 2 · Very Unimportant ☐ 1 · Don't Know ☐ DK
25. Adopting and monitoring long-range and annual improvement goals to improve student learning.	Very Important ☐ 4 · Important ☐ 3 · Unimportant ☐ 2 · Very Unimportant ☐ 1 · Don't Know ☐ DK
26. Adopting and monitoring plans for improving student learning.	Very Important ☐ 4 · Important ☐ 3 · Unimportant ☐ 2 · Very Unimportant ☐ 1 · Don't Know ☐ DK
27. Adopting and monitoring procedures for regularly informing the community about student learning progress.	Very Important ☐ 4 · Important ☐ 3 · Unimportant ☐ 2 · Very Unimportant ☐ 1 · Don't Know ☐ DK
28. Discussing/reviewing legal mandates and rules related to improving student learning.	Very Important ☐ 4 · Important ☐ 3 · Unimportant ☐ 2 · Very Unimportant ☐ 1 · Don't Know ☐ DK

Please indicate the importance of the following tasks for **Regional BOARD MEMBERS**

Behaviors of the Board	How important is this task for Regional BOARDS?				
29. Discussing improvement in student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
30. Ensuring time exists for staff to work together to improve student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
31. Developing and expressing a belief that the staff can significantly affect student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
32. Establishing criteria to guide the staff in choosing initiatives to improve student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
33. Evaluating the effectiveness of professional development for improving student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
34. Monitoring progress of student learning in relation to improvement goals.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
35. Influencing a community-wide belief that ***all*** students can and should be expected to learn the basic skills necessary to succeed in their current grade level.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
36. Mobilizing the community to support the goals for improving student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
37. Ensuring there is strong leadership for improving instruction in ways that result in improved student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
38. Establishing and communicating a singular focus for improving student learning (for example: a primary focus on improving reading comprehension).	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK

Behaviors of the Board	How important is this task for AEA BOARDS?				
39. Adopting and monitoring long-range and annual improvement goals to improve student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
40. Adopting and monitoring plans for improving student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
41. Adopting and monitoring procedures for regularly informing the community about student learning progress.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK
42. Discussing/reviewing legal mandates and rules related to improving student learning.	Very Important ☐ 4	Important ☐ 3	Unimportant ☐ 2	Very Unimportant ☐ 1	Don't Know ☐ DK

43. Is there anything else you would like to tell us about the roles and responsibilities of **local school board members** in relation to improving student achievement?

44. Is there anything else you would like to tell us about the roles and responsibilities of **AEA board members** in relation to improving student achievement?

APPENDIX B. HUMAN SUBJECTS APPROVAL FOR PHASE I OF THE STUDY

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office of Research Compliance
Vice Provost for Research and
Advanced Studies
2810 Beardshear Hall
Ames, Iowa 50011-2036
515 294-4566
FAX 515 294-7288

DATE: August 2, 2004

TO: Mary Delagardelle

FROM: Ginny Austin, IRB Administrator

RE: **IRB ID # 04-346**

STUDY REVIEW DATE: August 2, 2004

The Institutional Review Board has reviewed the project, *"A Proposal to Study the Perceptions of Regional and Local Board Members in Iowa about their Roles and Responsibilities in Relation to Student Achievement"* requirements of the human subject protections regulations as described in 45 CFR 46.101(b) 2. The applicable exemption category is provided below for your information. Please note that you must submit all research involving human participants for review by the IRB. Only the IRB may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

The IRB determination of exemption means that this project does not need to meet the requirements from the Department of Health and Human Service (DHHS) regulations for the protection of human subjects, unless required by the IRB. We do, however, urge you to protect the rights of your participants in the same ways that you would if your project was required to follow the regulations. This includes providing relevant information about the research to the participants.

Because your project is exempt, you do not need to submit an application for continuing review. However, you must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent if you have stated in your application that you will do so or required by the IRB.

Any modification of this research must be submitted to the IRB on a Continuation and/or Modification form, prior to making any changes, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

cc: ELPS
Thomas Alsbury

APPENDIX C. HUMAN SUBJECTS APPROVAL FOR PHASE II OF THE STUDY

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office of Research Assurances
Vice Provost for Research
1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566
FAX 515 294-4267

DATE: March 27, 2006

TO: Mary Delagardelle

FROM: Dianne Anderson, IRB Co-Chair

RE: **IRB ID #** 06-165
STUDY REVIEW DATE: March 23, 2006

The Institutional Review Board has reviewed the project, "Roles and Responsibilities of Local School Board Members in Relation to Student Achievement" requirements of the human subject protections regulations as described in 45 CFR 46.101(b)(1,2). The applicable exemption category is provided below for your information. Please note that you must submit all research involving human participants for review by the IRB. Only the IRB may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

The IRB determination of exemption means that this project does not need to meet the requirements from the Department of Health and Human Service (DHHS) regulations for the protection of human subjects, unless required by the IRB. We do, however, urge you to protect the rights of your participants in the same ways that you would if your project was required to follow the regulations. This includes providing relevant information about the research to the participants.

Because your project is exempt, you do not need to submit an application for continuing review. However, you must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent if you have stated in your application that you will do so or required by the IRB.

Any modification of this research must be submitted to the IRB on a Continuation and/or Modification form, prior to making any changes, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

cc: ELPS
Thomas Alsbury
File

APPENDIX D. TELEPHONE SCRIPTS

The purpose of the telephone contact is to provide information about the follow-up study, request participation in the study, and schedule the interview (with board members).

Superintendent Contact:

1. Introduce self and current position
2. Purpose of the call
    a. Board members (and superintendent if that is accurate) from your district participated in an electronic survey about the importance of certain board behaviors for improving student achievement. I am now doing a follow-up to that survey to understand what influences the beliefs of board members about their role for improving achievement.
    b. I am planning to contact board members in your district to see if they would be willing to participate by allowing me to interview them and I wanted to make sure you are informed.
3. Share timeframe.
4. Seek any advice about contacting the board members and/or scheduling the interviews.
5. Ask if they would like to see the interview guide so he/she knows what I will be asking the board members.

Board member Contact:

1. Introduce self and current position
2. Purpose of the call
    a. Board members (and superintendent if that is accurate) from your district participated in an electronic survey about the importance of certain board behaviors for improving student achievement. I am now doing a follow-up to that survey to understand what influences the beliefs of board members about their role for improving achievement.
    b. The information collected will be analyzed and used to add to a growing body of knowledge about the role of board members for improving student learning.
    c. This study is being completed as a part of my doctoral program through Iowa State University but the information will also be used to inform support services for local board members.
    d. I am calling to ask if you would be willing to participate in this study by allowing me to interview you.
        i. Does not matter whether or not you participated in the first survey.
        ii. The interview will take about an hour
        iii. The interview will be scheduled at a place and time convenient for you within a certain window of time for conducting the interviews in your district
        iv. The interview will be audio taped but the tapes will be for my use in analyzing all of the interviews and your participation will be completely anonymous
3. Share timeframe
4. Schedule time and place for the interview

APPENDIX E. INFORMED CONSENT DOCUMENT

Title of Study: **Roles and Responsibilities of Local School Board Members in Relation to Student Achievement**
Investigator: **Mary L. Delagardelle**

This is a research study. Please take your time in deciding if you would like to participate. Please feel free to ask questions at any time.

INTRODUCTION

The purpose of this study is to explore board members' perceptions about their responsibility for improving student learning and the factors that influence those beliefs. You are being invited to participate in this study as part of a follow-up to an earlier study about local and regional board members' perceptions of their roles and responsibilities.

DESCRIPTION OF PROCEDURES

If you agree to participate in this study, your participation will last for approximately two months and will involve a taped interview that will be scheduled at your convenience (approximately 1 hour in length), a potential observation of a regular board meeting, and potential follow-up phone calls to clarify any questions that arise during the analysis. The interview will be audio taped in addition to written notes taken during our conversation. You may feel free to "pass" and not answer any questions that you do not wish to answer. All audio tapes will be destroyed no later than December 1st (2006) and at no time will your name or school district be identified in the transcription or resulting report. You may be asked to review my notes to be sure I have interpreted your comments correctly and I will be happy to share the final paper upon request.

RISKS

There are no foreseeable risks at this time from participating in this study.

BENEFITS

If you decide to participate in this study there may be no direct benefit to you but the information gained will be valuable to the state by increasing our understanding of the role of the board in relation to improving achievement. It is hoped that this will be the beginning of a series of studies that will examine this area more thoroughly and your perceptions will be invaluable for focusing future studies.

COSTS AND COMPENSATION

You will not have any costs from participating in this study other than the valuable time you commit. Unfortunately, I am not able to compensate you for participating in this study.

PARTICIPANT RIGHTS

Your participation in this study is completely voluntary and you may refuse to participate or end your involvement at any time. If you decide not to participate in the study or end your involvement early, it will not result in any consequences to you.

CONFIDENTIALITY

Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy your records for quality assurance and data analysis. These records may contain private information.

To ensure confidentiality to the extent permitted by law, the following measures will be taken: your name and the name of your school district will not be used on any documents or written reports resulting from the study. Personal or district identifiers will not be kept with the data. All records will be kept confidential on a personal computer and in personal files where others do not have access to them. If the results are published, your identity will remain confidential.

QUESTIONS OR PROBLEMS

You are encouraged to ask questions at any time during this study. For further information about the study you may feel free to contact me at any time at home (515) 292-8408 or at work (515) 288-1991 ext. 266 or by email mdelagardelle@ia-sb.org . You may also contact my major professor, Dr. Thomas Alsbury, N229-C Lagomarcino Hall, Iowa State University, (515) 294-5785, or by email alsbury@iastate.edu.
If you have any questions about the rights of research subjects or research-related injury, please contact Ginny Austin Eason, IRB Administrator, (515) 294-4566, austingr@iastate.edu, or Diane Ament, Director, Office of Research Assurances (515) 294-3115, dament@iastate.edu.

****
****

PARTICIPANT SIGNATURE

Your signature indicates that you voluntarily agree to participate in this study, that the study has been explained to you, that you have been given the time to read the document and that your questions have been satisfactorily answered. You will receive a copy of the signed and dated written informed consent prior to your participation in the study.

Participant's Name (printed) _____

_____ _____
(Participant's Signature) (Date)

INVESTIGATOR STATEMENT

I certify that the participant has been given adequate time to read and learn about the study and all of their questions have been answered. It is my opinion that the participant understands the purpose, risks, benefits and the procedures that will be followed in this study and has voluntarily agreed to participate.

_____ _____
(Signature of Person Obtaining Informed Consent) (Date)

APPENDIX F. INTERVIEW GUIDE

Introductions:

Explain purpose of the study:

Explain the Informed Consent Form and obtain signatures:

Participant Information:

Name: _____

Date: _____

District: _____

Did the participant complete the initial survey? YES NO

Background information:

How many years have you served on the board: _____

On average, how much time does your board spend in meetings and/or work-sessions each month: ____

The size of the school district:

_____ less than 250
_____ 250 – 399
_____ 400 – 599
_____ 600 – 999
_____ 1000 – 2499
_____ 2500 – 7499
_____ 7500+

Gender: _____ Female _____ Male

The highest level of education of the participant:

_____ Did not graduate from high school
_____ High school graduate or GED
_____ Some college/post high school training (including AA or AS Degree)
_____ Bachelor's Degree
_____ Advanced Degree (MA, Ph.D., Ed.D., MD, DVM, etc.)

Do you currently have children or grandchildren attending school in the district where you live:

_____Yes _____ No

Age of the participant:

_____ 18 – 34
_____ 35 – 54
_____ 55 – 64
_____ 65 or older

Sample Questions:

1. Why did you run for the board? Has your reason for being on the board changed since you were first elected?
2. Talk about the achievement of students in your district.
3. Describe what you believe to be the most important role of the board for improving the achievement of students in your district.
4. Why do you believe that is the most important role of the board?
5. What behaviors of the board have had the most impact on the achievement of students in your district?
6. How do you know those behaviors had an impact?
7. What influenced the board's ability to have that impact?
8. What factors have the most influence on the decisions of the board in areas related to student learning? Is this different for other areas of decision making?
9. Is achievement changing in your district? How do you know? What is contributing to that change?
10. What else would you like me to know about the role of the board for improving student learning?

APPENDIX G. CONTACT SUMMARY FORM

Contact type: _____ Interview: _____ Phone: _____ Other _____

Site: _____ Date: _____

1. What were the main issues or themes that struck you in this contact?

2. Summarize the information you got (or failed to get) on each of the target question you had for this contact:

Question	**Information**

3. Anything else that struck you as salient, interesting, illuminating or important in this contact?

4. What new or remaining target questions do you have in considering the next contact with this site?

APPENDIX H. ONE-WAY ANOVA TABLES

The one-way ANOVA tables provide the results of the tests comparing responses for each survey item in the section "Importance for Local Boards" comparing the responses of the participants by the role (local board member, regional board member, CEO) of the participant. These tables were created using SPSS software. Similar tables are available upon request for the other two sections of the survey (time, importance for regional boards) but will not be included here.

One-way ANOVA for Survey Item 1:

Descriptives

il1q15

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	499	3.71	.523	.023	3.67	3.76	0	4
AEA Board Member	32	3.75	.440	.078	3.59	3.91	3	4
CEO	173	3.51	.501	.038	3.43	3.58	3	4
Total	704	3.66	.521	.020	3.63	3.70	0	4

Test of Homogeneity of Variances

il1q15

Levene Statistic	df1	df2	Sig.
6.702	2	701	.001

ANOVA

il1q15

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.629	2	2.815	10.650	.000
Within Groups	185.257	701	.264		
Total	190.886	703			

Post Hoc Tests for Survey Item 1:

Multiple Comparisons

Dependent Variable: il1q15

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.037	.094	.697	-.22	.15
		CEO	.205*	.045	.000	.12	.29
	AEA Board Member	Local Board Member	.037	.094	.697	-.15	.22
		CEO	.241*	.099	.015	.05	.44
	CEO	Local Board Member	-.205*	.045	.000	-.29	-.12
		AEA Board Member	-.241*	.099	.015	-.44	-.05
Bonferroni	Local Board Member	AEA Board Member	-.037	.094	1.000	-.26	.19
		CEO	.205*	.045	.000	.10	.31
	AEA Board Member	Local Board Member	.037	.094	1.000	-.19	.26
		CEO	.241*	.099	.045	.00	.48
	CEO	Local Board Member	-.205*	.045	.000	-.31	-.10
		AEA Board Member	-.241*	.099	.045	-.48	.00
Tamhane	Local Board Member	AEA Board Member	-.037	.081	.959	-.24	.17
		CEO	.205*	.045	.000	.10	.31
	AEA Board Member	Local Board Member	.037	.081	.959	-.17	.24
		CEO	.241*	.087	.023	.03	.46
	CEO	Local Board Member	-.205*	.045	.000	-.31	-.10
		AEA Board Member	-.241*	.087	.023	-.46	-.03

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 2:

Descriptives

il2q16

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	499	3.59	.551	.025	3.54	3.64	0	4
AEA Board Member	32	3.59	.798	.141	3.31	3.88	0	4
CEO	173	3.35	.645	.049	3.26	3.45	0	4
Total	704	3.53	.596	.022	3.49	3.57	0	4

Test of Homogeneity of Variances

il2q16

Levene Statistic	df1	df2	Sig.
1.073	2	701	.343

ANOVA

il2q16

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.206	2	3.603	10.429	.000
Within Groups	242.168	701	.345		
Total	249.374	703			

Post Hoc Tests for Survey Item 2:

Multiple Comparisons

Dependent Variable: il2q16

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.007	.107	.951	-.22	.20
		CEO	.235*	.052	.000	.13	.34
	AEA Board Member	Local Board Member	.007	.107	.951	-.20	.22
		CEO	.241*	.113	.033	.02	.46
	CEO	Local Board Member	-.235*	.052	.000	-.34	-.13
		AEA Board Member	-.241*	.113	.033	-.46	-.02
Bonferroni	Local Board Member	AEA Board Member	-.007	.107	1.000	-.26	.25
		CEO	.235*	.052	.000	.11	.36
	AEA Board Member	Local Board Member	.007	.107	1.000	-.25	.26
		CEO	.241	.113	.100	-.03	.51
	CEO	Local Board Member	-.235*	.052	.000	-.36	-.11
		AEA Board Member	-.241	.113	.100	-.51	.03
Tamhane	Local Board Member	AEA Board Member	-.007	.143	1.000	-.37	.35
		CEO	.235*	.055	.000	.10	.37
	AEA Board Member	Local Board Member	.007	.143	1.000	-.35	.37
		CEO	.241	.149	.305	-.13	.61
	CEO	Local Board Member	-.235*	.055	.000	-.37	-.10
		AEA Board Member	-.241	.149	.305	-.61	.13

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 3:

Descriptives

il3q17

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	498	3.66	.555	.025	3.61	3.71	0	4
AEA Board Member	32	3.69	.471	.083	3.52	3.86	3	4
CEO	174	3.43	.601	.046	3.34	3.52	0	4
Total	704	3.61	.572	.022	3.56	3.65	0	4

Test of Homogeneity of Variances

il3q17

Levene Statistic	df1	df2	Sig.
4.275	2	701	.014

ANOVA

il3q17

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.493	2	3.746	11.791	.000
Within Groups	222.729	701	.318		
Total	230.222	703			

Post Hoc Tests for Survey Item 3:

Multiple Comparisons

Dependent Variable: il3q17

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.025	.103	.809	-.23	.18
		CEO	.237*	.050	.000	.14	.33
	AEA Board Member	Local Board Member	.025	.103	.809	-.18	.23
		CEO	.262*	.108	.016	.05	.48
	CEO	Local Board Member	-.237*	.050	.000	-.33	-.14
		AEA Board Member	-.262*	.108	.016	-.48	-.05
Bonferroni	Local Board Member	AEA Board Member	-.025	.103	1.000	-.27	.22
		CEO	.237*	.050	.000	.12	.36
	AEA Board Member	Local Board Member	.025	.103	1.000	-.22	.27
		CEO	.262*	.108	.048	.00	.52
	CEO	Local Board Member	-.237*	.050	.000	-.36	-.12
		AEA Board Member	-.262*	.108	.048	-.52	.00
Tamhane	Local Board Member	AEA Board Member	-.025	.087	.989	-.24	.19
		CEO	.237*	.052	.000	.11	.36
	AEA Board Member	Local Board Member	.025	.087	.989	-.19	.24
		CEO	.262*	.095	.024	.03	.50
	CEO	Local Board Member	-.237*	.052	.000	-.36	-.11
		AEA Board Member	-.262*	.095	.024	-.50	-.03

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 4:

Descriptives

il4q18

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	496	3.16	.800	.036	3.09	3.23	0	4
AEA Board Member	32	3.28	.888	.157	2.96	3.60	0	4
CEO	174	2.79	.787	.060	2.67	2.91	0	4
Total	702	3.07	.816	.031	3.01	3.13	0	4

Test of Homogeneity of Variances

il4q18

Levene Statistic	df1	df2	Sig.
.954	2	699	.386

ANOVA

il4q18

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	19.277	2	9.638	15.038	.000
Within Groups	448.018	699	.641		
Total	467.295	701			

Post Hoc Tests for Survey Item 4:

Multiple Comparisons

Dependent Variable: il4q18

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.122	.146	.404	-.41	.16
		CEO	.372*	.071	.000	.23	.51
	AEA Board Member	Local Board Member	.122	.146	.404	-.16	.41
		CEO	.494*	.154	.001	.19	.80
	CEO	Local Board Member	-.372*	.071	.000	-.51	-.23
		AEA Board Member	-.494*	.154	.001	-.80	-.19
Bonferroni	Local Board Member	AEA Board Member	-.122	.146	1.000	-.47	.23
		CEO	.372*	.071	.000	.20	.54
	AEA Board Member	Local Board Member	.122	.146	1.000	-.23	.47
		CEO	.494*	.154	.004	.12	.86
	CEO	Local Board Member	-.372*	.071	.000	-.54	-.20
		AEA Board Member	-.494*	.154	.004	-.86	-.12
Tamhane	Local Board Member	AEA Board Member	-.122	.161	.837	-.53	.28
		CEO	.372*	.070	.000	.20	.54
	AEA Board Member	Local Board Member	.122	.161	.837	-.28	.53
		CEO	.494*	.168	.016	.08	.91
	CEO	Local Board Member	-.372*	.070	.000	-.54	-.20
		AEA Board Member	-.494*	.168	.016	-.91	-.08

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 5:

Descriptives

il5q19

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	495	3.31	.723	.032	3.25	3.37	0	4
AEA Board Member	32	3.41	.615	.109	3.18	3.63	2	4
CEO	174	2.81	.828	.063	2.69	2.93	0	4
Total	701	3.19	.777	.029	3.13	3.25	0	4

Test of Homogeneity of Variances

il5q19

Levene Statistic	df1	df2	Sig.
.017	2	698	.983

ANOVA

il5q19

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	33.836	2	16.918	30.392	.000
Within Groups	388.549	698	.557		
Total	422.385	700			

Post Hoc Tests for Survey Item 5:

Multiple Comparisons

Dependent Variable: il5q19

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.095	.136	.485	-.36	.17
		CEO	.501*	.066	.000	.37	.63
	AEA Board Member	Local Board Member	.095	.136	.485	-.17	.36
		CEO	.596*	.144	.000	.31	.88
	CEO	Local Board Member	-.501*	.066	.000	-.63	-.37
		AEA Board Member	-.596*	.144	.000	-.88	-.31
Bonferroni	Local Board Member	AEA Board Member	-.095	.136	1.000	-.42	.23
		CEO	.501*	.066	.000	.34	.66
	AEA Board Member	Local Board Member	.095	.136	1.000	-.23	.42
		CEO	.596*	.144	.000	.25	.94
	CEO	Local Board Member	-.501*	.066	.000	-.66	-.34
		AEA Board Member	-.596*	.144	.000	-.94	-.25
Tamhane	Local Board Member	AEA Board Member	-.095	.113	.792	-.38	.19
		CEO	.501*	.071	.000	.33	.67
	AEA Board Member	Local Board Member	.095	.113	.792	-.19	.38
		CEO	.596*	.126	.000	.29	.91
	CEO	Local Board Member	-.501*	.071	.000	-.67	-.33
		AEA Board Member	-.596*	.126	.000	-.91	-.29

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 6:

Descriptives

il6q20

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	496	3.59	.562	.025	3.54	3.64	0	4
AEA Board Member	32	3.66	.483	.085	3.48	3.83	3	4
CEO	174	3.41	.559	.042	3.32	3.49	2	4
Total	702	3.55	.563	.021	3.50	3.59	0	4

Test of Homogeneity of Variances

il6q20

Levene Statistic	df1	df2	Sig.
1.440	2	699	.238

ANOVA

il6q20

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.522	2	2.261	7.265	.001
Within Groups	217.520	699	.311		
Total	222.041	701			

Post Hoc Tests for Survey Item 6:

Multiple Comparisons

Dependent Variable: il6q20

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.070	.102	.494	-.27	.13
		CEO	.179*	.049	.000	.08	.28
	AEA Board Member	Local Board Member	.070	.102	.494	-.13	.27
		CEO	.248*	.107	.021	.04	.46
	CEO	Local Board Member	-.179*	.049	.000	-.28	-.08
		AEA Board Member	-.248*	.107	.021	-.46	-.04
Bonferroni	Local Board Member	AEA Board Member	-.070	.102	1.000	-.31	.17
		CEO	.179*	.049	.001	.06	.30
	AEA Board Member	Local Board Member	.070	.102	1.000	-.17	.31
		CEO	.248	.107	.063	-.01	.51
	CEO	Local Board Member	-.179*	.049	.001	-.30	-.06
		AEA Board Member	-.248	.107	.063	-.51	.01
Tamhane	Local Board Member	AEA Board Member	-.070	.089	.824	-.29	.15
		CEO	.179*	.049	.001	.06	.30
	AEA Board Member	Local Board Member	.070	.089	.824	-.15	.29
		CEO	.248*	.095	.036	.01	.48
	CEO	Local Board Member	-.179*	.049	.001	-.30	-.06
		AEA Board Member	-.248*	.095	.036	-.48	-.01

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 7:

Descriptives

il7q21

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	495	3.46	.738	.033	3.39	3.52	0	4
AEA Board Member	32	3.53	.507	.090	3.35	3.71	3	4
CEO	174	3.35	.670	.051	3.25	3.45	0	4
Total	701	3.43	.713	.027	3.38	3.49	0	4

Test of Homogeneity of Variances

il7q21

Levene Statistic	df1	df2	Sig.
1.572	2	698	.208

ANOVA

il7q21

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.766	2	.883	1.739	.177
Within Groups	354.400	698	.508		
Total	356.165	700			

Post Hoc Tests for Survey Item 7:

Multiple Comparisons

Dependent Variable: il7q21

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.075	.130	.566	-.33	.18
		CEO	.106	.063	.092	-.02	.23
	AEA Board Member	Local Board Member	.075	.130	.566	-.18	.33
		CEO	.181	.137	.188	-.09	.45
	CEO	Local Board Member	-.106	.063	.092	-.23	.02
		AEA Board Member	-.181	.137	.188	-.45	.09
Bonferroni	Local Board Member	AEA Board Member	-.075	.130	1.000	-.39	.24
		CEO	.106	.063	.276	-.04	.26
	AEA Board Member	Local Board Member	.075	.130	1.000	-.24	.39
		CEO	.181	.137	.564	-.15	.51
	CEO	Local Board Member	-.106	.063	.276	-.26	.04
		AEA Board Member	-.181	.137	.564	-.51	.15
Tamhane	Local Board Member	AEA Board Member	-.075	.096	.824	-.31	.16
		CEO	.106	.061	.225	-.04	.25
	AEA Board Member	Local Board Member	.075	.096	.824	-.16	.31
		CEO	.181	.103	.234	-.07	.43
	CEO	Local Board Member	-.106	.061	.225	-.25	.04
		AEA Board Member	-.181	.103	.234	-.43	.07

One-way ANOVA for Survey Item 8:

Descriptives

il8q22

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	495	3.38	.718	.032	3.31	3.44	0	4
AEA Board Member	32	3.28	.991	.175	2.92	3.64	0	4
CEO	174	3.23	.763	.058	3.12	3.34	0	4
Total	701	3.34	.745	.028	3.28	3.39	0	4

Test of Homogeneity of Variances

il8q22

Levene Statistic	df1	df2	Sig.
1.154	2	698	.316

ANOVA

il8q22

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.919	2	1.459	2.642	.072
Within Groups	385.629	698	.552		
Total	388.548	700			

Post Hoc Tests for Survey Item 8:

Multiple Comparisons

Dependent Variable: il8q22

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	.097	.136	.477	-.17	.36
		CEO	.148*	.066	.024	.02	.28
	AEA Board Member	Local Board Member	-.097	.136	.477	-.36	.17
		CEO	.051	.143	.719	-.23	.33
	CEO	Local Board Member	-.148*	.066	.024	-.28	-.02
		AEA Board Member	-.051	.143	.719	-.33	.23
Bonferroni	Local Board Member	AEA Board Member	.097	.136	1.000	-.23	.42
		CEO	.148	.066	.073	-.01	.31
	AEA Board Member	Local Board Member	-.097	.136	1.000	-.42	.23
		CEO	.051	.143	1.000	-.29	.39
	CEO	Local Board Member	-.148	.066	.073	-.31	.01
		AEA Board Member	-.051	.143	1.000	-.39	.29
Tamhane	Local Board Member	AEA Board Member	.097	.178	.932	-.35	.54
		CEO	.148	.066	.077	-.01	.31
	AEA Board Member	Local Board Member	-.097	.178	.932	-.54	.35
		CEO	.051	.185	.990	-.41	.51
	CEO	Local Board Member	-.148	.066	.077	-.31	.01
		AEA Board Member	-.051	.185	.990	-.51	.41

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 9:

Descriptives

il9q23

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	494	3.72	.490	.022	3.67	3.76	0	4
AEA Board Member	32	3.78	.420	.074	3.63	3.93	3	4
CEO	174	3.58	.506	.038	3.50	3.66	2	4
Total	700	3.69	.494	.019	3.65	3.72	0	4

Test of Homogeneity of Variances

il9q23

Levene Statistic	df1	df2	Sig.
9.731	2	697	.000

ANOVA

il9q23

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.691	2	1.345	5.577	.004
Within Groups	168.166	697	.241		
Total	170.857	699			

Post Hoc Tests for Survey Item 9:

Multiple Comparisons

Dependent Variable: il9q23

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.065	.090	.471	-.24	.11
		CEO	.136*	.043	.002	.05	.22
	AEA Board Member	Local Board Member	.065	.090	.471	-.11	.24
		CEO	.201*	.094	.034	.02	.39
	CEO	Local Board Member	-.136*	.043	.002	-.22	-.05
		AEA Board Member	-.201*	.094	.034	-.39	-.02
Bonferroni	Local Board Member	AEA Board Member	-.065	.090	1.000	-.28	.15
		CEO	.136*	.043	.005	.03	.24
	AEA Board Member	Local Board Member	.065	.090	1.000	-.15	.28
		CEO	.201	.094	.102	-.03	.43
	CEO	Local Board Member	-.136*	.043	.005	-.24	-.03
		AEA Board Member	-.201	.094	.102	-.43	.03
Tamhane	Local Board Member	AEA Board Member	-.065	.077	.794	-.26	.13
		CEO	.136*	.044	.007	.03	.24
	AEA Board Member	Local Board Member	.065	.077	.794	-.13	.26
		CEO	.201	.084	.059	-.01	.41
	CEO	Local Board Member	-.136*	.044	.007	-.24	-.03
		AEA Board Member	-.201	.084	.059	-.41	.01

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 10:

Descriptives

il10q24

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	491	3.32	.712	.032	3.25	3.38	0	4
AEA Board Member	32	3.31	.592	.105	3.10	3.53	2	4
CEO	174	3.11	.701	.053	3.00	3.21	0	4
Total	697	3.27	.709	.027	3.21	3.32	0	4

Test of Homogeneity of Variances

il10q24

Levene Statistic	df1	df2	Sig.
5.268	2	694	.005

ANOVA

il10q24

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.661	2	2.830	5.706	.003
Within Groups	344.236	694	.496		
Total	349.897	696			

Post Hoc Tests for Survey Item 10:

Multiple Comparisons

Dependent Variable: il10q24

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	.005	.128	.968	-.25	.26
		CEO	.209*	.062	.001	.09	.33
	AEA Board Member	Local Board Member	-.005	.128	.968	-.26	.25
		CEO	.203	.135	.134	-.06	.47
	CEO	Local Board Member	-.209*	.062	.001	-.33	-.09
		AEA Board Member	-.203	.135	.134	-.47	.06
Bonferroni	Local Board Member	AEA Board Member	.005	.128	1.000	-.30	.31
		CEO	.209*	.062	.003	.06	.36
	AEA Board Member	Local Board Member	-.005	.128	1.000	-.31	.30
		CEO	.203	.135	.402	-.12	.53
	CEO	Local Board Member	-.209*	.062	.003	-.36	-.06
		AEA Board Member	-.203	.135	.402	-.53	.12
Tamhane	Local Board Member	AEA Board Member	.005	.110	1.000	-.27	.28
		CEO	.209*	.062	.003	.06	.36
	AEA Board Member	Local Board Member	-.005	.110	1.000	-.28	.27
		CEO	.203	.117	.246	-.09	.49
	CEO	Local Board Member	-.209*	.062	.003	-.36	-.06
		AEA Board Member	-.203	.117	.246	-.49	.09

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 11:

Descriptives

il11q25

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	494	3.61	.558	.025	3.56	3.66	0	4
AEA Board Member	32	3.72	.457	.081	3.55	3.88	3	4
CEO	173	3.44	.613	.047	3.35	3.53	0	4
Total	699	3.57	.573	.022	3.53	3.62	0	4

Test of Homogeneity of Variances

il11q25

Levene Statistic	df1	df2	Sig.
4.002	2	696	.019

ANOVA

il11q25

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.498	2	2.249	6.973	.001
Within Groups	224.458	696	.322		
Total	228.956	698			

Post Hoc Tests for Survey Item 11:

Multiple Comparisons

Dependent Variable: il11q25

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.107	.104	.300	-.31	.10
		CEO	.172*	.050	.001	.07	.27
	AEA Board Member	Local Board Member	.107	.104	.300	-.10	.31
		CEO	.279*	.109	.011	.06	.49
	CEO	Local Board Member	-.172*	.050	.001	-.27	-.07
		AEA Board Member	-.279*	.109	.011	-.49	-.06
Bonferroni	Local Board Member	AEA Board Member	-.107	.104	.900	-.36	.14
		CEO	.172*	.050	.002	.05	.29
	AEA Board Member	Local Board Member	.107	.104	.900	-.14	.36
		CEO	.279*	.109	.032	.02	.54
	CEO	Local Board Member	-.172*	.050	.002	-.29	-.05
		AEA Board Member	-.279*	.109	.032	-.54	-.02
Tamhane	Local Board Member	AEA Board Member	-.107	.085	.510	-.32	.10
		CEO	.172*	.053	.004	.04	.30
	AEA Board Member	Local Board Member	.107	.085	.510	-.10	.32
		CEO	.279*	.093	.012	.05	.51
	CEO	Local Board Member	-.172*	.053	.004	-.30	-.04
		AEA Board Member	-.279*	.093	.012	-.51	-.05

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 12

Descriptives

il12q26

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	494	3.42	.689	.031	3.36	3.48	0	4
AEA Board Member	32	3.56	.564	.100	3.36	3.77	2	4
CEO	174	3.17	.722	.055	3.06	3.27	0	4
Total	700	3.36	.701	.027	3.31	3.41	0	4

Test of Homogeneity of Variances

il12q26

Levene Statistic	df1	df2	Sig.
2.259	2	697	.105

ANOVA

il12q26

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.531	2	4.766	9.936	.000
Within Groups	334.303	697	.480		
Total	343.834	699			

Post Hoc Tests for Survey Item 12:

Multiple Comparisons

Dependent Variable: il12q26

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.143	.126	.256	-.39	.10
		CEO	.252*	.061	.000	.13	.37
	AEA Board Member	Local Board Member	.143	.126	.256	-.10	.39
		CEO	.396*	.133	.003	.13	.66
	CEO	Local Board Member	-.252*	.061	.000	-.37	-.13
		AEA Board Member	-.396*	.133	.003	-.66	-.13
Bonferroni	Local Board Member	AEA Board Member	-.143	.126	.769	-.45	.16
		CEO	.252*	.061	.000	.11	.40
	AEA Board Member	Local Board Member	.143	.126	.769	-.16	.45
		CEO	.396*	.133	.009	.08	.72
	CEO	Local Board Member	-.252*	.061	.000	-.40	-.11
		AEA Board Member	-.396*	.133	.009	-.72	-.08
Tamhane	Local Board Member	AEA Board Member	-.143	.104	.444	-.40	.12
		CEO	.252*	.063	.000	.10	.40
	AEA Board Member	Local Board Member	.143	.104	.444	-.12	.40
		CEO	.396*	.114	.003	.12	.68
	CEO	Local Board Member	-.252*	.063	.000	-.40	-.10
		AEA Board Member	-.396*	.114	.003	-.68	-.12

*. The mean difference is significant at the .05 level.

One-way ANOVA for Survey Item 13:

Descriptives

il13q27

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	496	3.29	.697	.031	3.23	3.35	0	4
AEA Board Member	32	3.16	.954	.169	2.81	3.50	0	4
CEO	173	3.20	.607	.046	3.11	3.29	0	4
Total	701	3.26	.690	.026	3.21	3.31	0	4

Test of Homogeneity of Variances

il13q27

Levene Statistic	df1	df2	Sig.
2.704	2	698	.068

ANOVA

il13q27

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.556	2	.778	1.635	.196
Within Groups	332.148	698	.476		
Total	333.703	700			

Post Hoc Tests for Survey Item 13:

Multiple Comparisons

Dependent Variable: il13q27

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	.136	.126	.280	-.11	.38
		CEO	.096	.061	.116	-.02	.22
	AEA Board Member	Local Board Member	-.136	.126	.280	-.38	.11
		CEO	-.040	.133	.762	-.30	.22
	CEO	Local Board Member	-.096	.061	.116	-.22	.02
		AEA Board Member	.040	.133	.762	-.22	.30
Bonferroni	Local Board Member	AEA Board Member	.136	.126	.839	-.17	.44
		CEO	.096	.061	.349	-.05	.24
	AEA Board Member	Local Board Member	-.136	.126	.839	-.44	.17
		CEO	-.040	.133	1.000	-.36	.28
	CEO	Local Board Member	-.096	.061	.349	-.24	.05
		AEA Board Member	.040	.133	1.000	-.28	.36
Tamhane	Local Board Member	AEA Board Member	.136	.172	.818	-.30	.57
		CEO	.096	.056	.238	-.04	.23
	AEA Board Member	Local Board Member	-.136	.172	.818	-.57	.30
		CEO	-.040	.175	.994	-.48	.40
	CEO	Local Board Member	-.096	.056	.238	-.23	.04
		AEA Board Member	.040	.175	.994	-.40	.48

One-way ANOVA for Survey Item 14:

Descriptives

il14q28

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Local Board Member	496	3.31	.605	.027	3.25	3.36	0	4
AEA Board Member	32	3.34	.483	.085	3.17	3.52	3	4
CEO	174	3.06	.506	.038	2.99	3.14	0	4
Total	702	3.25	.586	.022	3.20	3.29	0	4

Test of Homogeneity of Variances

il14q28

Levene Statistic	df1	df2	Sig.
28.024	2	699	.000

ANOVA

il14q28

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.929	2	3.965	11.897	.000
Within Groups	232.943	699	.333		
Total	240.872	701			

Post Hoc Tests for Survey Item 14:

Multiple Comparisons

Dependent Variable: il14q28

	(I) role2	(J) role2	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
LSD	Local Board Member	AEA Board Member	-.037	.105	.723	-.24	.17
		CEO	.243*	.051	.000	.14	.34
	AEA Board Member	Local Board Member	.037	.105	.723	-.17	.24
		CEO	.281*	.111	.012	.06	.50
	CEO	Local Board Member	-.243*	.051	.000	-.34	-.14
		AEA Board Member	-.281*	.111	.012	-.50	-.06
Bonferroni	Local Board Member	AEA Board Member	-.037	.105	1.000	-.29	.22
		CEO	.243*	.051	.000	.12	.37
	AEA Board Member	Local Board Member	.037	.105	1.000	-.22	.29
		CEO	.281*	.111	.035	.01	.55
	CEO	Local Board Member	-.243*	.051	.000	-.37	-.12
		AEA Board Member	-.281*	.111	.035	-.55	-.01
Tamhane	Local Board Member	AEA Board Member	-.037	.090	.967	-.26	.19
		CEO	.243*	.047	.000	.13	.36
	AEA Board Member	Local Board Member	.037	.090	.967	-.19	.26
		CEO	.281*	.094	.013	.05	.51
	CEO	Local Board Member	-.243*	.047	.000	-.36	-.13
		AEA Board Member	-.281*	.094	.013	-.51	-.05

*. The mean difference is significant at the .05 level.

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