



LEARNING FROM LEADERSHIP PROJECT

Investigating the Links to Improved Student Learning

FINAL REPORT OF RESEARCH FINDINGS

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Learning from Leadership: Investigating the Links to Improved Student Learning

Final Report of Research to the Wallace Foundation

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Starting Points

Purposes for the Study

Education is widely held to be crucial for the survival and success of individuals and countries in the emerging global environment. U.S. politicians of all stripes have placed education at the center of their political platforms, and education has been at the center of many European and Asian policy agendas. Comparable agreement is also evident about the contributions of leadership to the implementation of virtually all initiatives aimed at improving student learning and the quality of schools. It is therefore difficult to imagine a focus for research with greater social justification than research about successful educational leadership. That was the broad focus for this six-year study funded by the Wallace Foundation: to identify the nature of successful educational leadership and to better understand how such leadership can improve educational practices and student learning.

More specifically, we sought to do the following:

- Identify state, district, and school leadership practices that directly or indirectly foster the improvement of educational practices and student learning.
- Clarify how successful leadership practices directly and indirectly influence the quality of teaching and learning.
- Determine the extent to which individuals and groups at state, district, school, and classroom levels possess the will and skill required to improve student learning, and the extent to which their work settings allow and encourage them to act on those capacities and motivations.
- Describe the ways in which, and the success with which, individuals and groups at the state, district, school, and classroom levels help others to acquire the will and skill required to improve student learning.
- Identify the leadership and workplace characteristics of districts and schools that encourage the values, capacities, and use of practices that improve student learning.

The Educational Leadership Effect

Although leadership is widely thought to be a powerful force for school effectiveness, this popular belief needs to be justified by empirical evidence. There are five types of such evidence, each offering its own estimate of the size of leader effects.

One type is evidence from *qualitative case studies*. Studies providing this type of evidence typically are conducted in exceptional school settings, selected as exemplars of effectiveness.¹ Some such studies report large leadership effects—on student learning and on an array of school conditions. Other qualitative studies focus on “typical” schools

¹ See, e.g., Gezi (1990); Reitzug & Patterson (1998).

rather than outliers; these studies often produce complex pictures of how leadership operates in different settings.² Many educators and scholars find the descriptions provided by case studies to be interesting and informative. But descriptions of a small number of cases do not yield explanations of leadership effects for a more general population of schools.³

The second type of evidence derives from *large-scale quantitative studies of leadership effects on schools and students*. Evidence of this type, as reported and reviewed since about 1980,⁴ suggests that the direct and indirect effects of school leadership on student learning are small but significant. Leadership explains five to seven percent of the variation in student learning across schools (not to be confused with the very large within-school effects that are likely). Five to seven percent, however, is about one quarter of the total across-school variation (12 to 20 percent) explained by all school-level variables, after controlling for student intake or background factors.⁵ (Classroom factors explain more than a third of the variation.) To date, however, research of this sort has done little to clarify how leaders achieve the effects in question, and its implications for leadership practice are, therefore, limited.

A third type of evidence derives from studies (also large-scale and quantitative) focused on the *effects of specific leadership practices*. Some evidence of this sort can be found in the research briefly summarized above. But a meta-analysis conducted by Waters, Marzano and McNulty (2003) extends our understanding of the explanatory potential of this type of research. Waters et al. identify 21 leadership “responsibilities” (behaviors); then they calculate an average correlation between each responsibility and the measures of student learning used in the original studies. From these data they calculate estimated effects of the respective responsibilities on student test scores. For example: there would be a 10 percentile point increase in student test scores resulting from the work of an average principal if she improved her “demonstrated abilities in all 21 responsibilities by one standard deviation” (2003, p. 3). Extending this line of inquiry, Marzano et al. (2005) provide a comparable analysis of research on district-level leadership, identifying five broad categories of superintendent leadership.

A fourth type of evidence derives from studies of *leadership effects on student engagement*, as distinct from effects on student learning. Some evidence suggests that student engagement is a strong predictor of student learning.⁶ Recently, at least 10 large-scale, quantitative studies, similar in design, have assessed the effects of leadership behavior on student engagement; all have reported significant positive effects.⁷

² Spillane, Diamond, & Burch et al. (2002).

³ See, e.g., Mortimore (1993), and Scheurich (1998).

⁴ See, e.g., Hallinger & Heck (1996b); Leithwood & Jantzi (2005); Marzano, Waters & McNulty (2005); and Robinson, Lloyd, & Rowe (2008).

⁵ Creemers & Reetzig (1996), and Townsend (1994).

⁶ See Fredricks, Blumenfeld, & Paris (2004) for a review, especially at p. 70.

⁷ Leithwood & Jantzi (1999a, 1999b); Leithwood et al. (2004a); Silins & Mulford (2002b); and Silins, Mulford, & Zarins (2002).

Finally, a different but quite compelling sort of evidence about leadership effects derives from research on leadership succession. Unplanned principal succession, for example, is a common source of adverse effects on school performance, regardless of what teachers might do. Studies by Macmillan (2000) and Fink & Brayman (2006) demonstrate the devastating effects of rapid principal succession, especially on initiatives intended to increase student learning. And rapid succession is very common. Clearly, leadership matters.

In developing a starting point for this six-year study, we claimed, based on a preliminary review of research,⁸ that leadership is second only to classroom instruction as an influence on student learning. After six additional years of research, we are even more confident about this claim. To date we have not found a single case of a school improving its student achievement record in the absence of talented leadership. Why is leadership crucial? One explanation is that leaders have the potential to unleash latent capacities in organizations. Put somewhat differently: most school variables, considered separately, have only small effects on student learning⁹. To obtain large effects, educators need to create synergy across the relevant variables. Among all the parents, teachers, and policy makers who work hard to improve education, educators in leadership positions are uniquely well positioned to ensure the necessary synergy.

Meanings of Leadership

Leadership can be described by reference to two core functions. One function is *providing direction*; the other is *exercising influence*. Whatever else leaders do, they provide direction and exercise influence. This does not imply oversimplification. Each of these two leadership functions can be carried out in different ways, and the various modes of practice linked to the functions distinguish many “models” of leadership.

In carrying out these two functions, leaders act in environments marked variously by stability and change. These conditions interact in complementary relationships. While stability is often associated with resistance and maintenance of the status quo, it is in fact difficult for leaders and other educators to leap forward from a wobbly foundation. To be more precise, it is stability and *improvement* that have this symbiotic relationship. Leaping forward from a wobbly foundation may well produce change, but not change of the sort that most of us value—falling flat on your face is the image that comes to mind. Wobbly foundations and unwise leaping help to explain why the blizzard of changes adopted by our schools over the past half century have had little effect on the success of our students. School reform efforts have been most successful in those schools that have needed them least.¹⁰ These have been schools with well-established processes and capacities in place, providing foundations on which to build—in contrast to those schools, the ones most often of concern to reformers, short on essential infrastructure.

How do these concepts come together in a clarification of *leadership*? Leadership is all about organizational improvement; more specifically, it is about establishing

⁸ Leithwood, Louis, Anderson & Wahlstrom (2004)

⁹ Creemers & Reetzigt, 1996

¹⁰ Elmore (1995)

agreed-upon and worthwhile directions for the organization in question, and doing whatever it takes to prod and support people to move in those directions. Our general definition of leadership highlights these points: it is about direction and influence. Stability is the goal of what is often called management. Improvement is the goal of leadership. But both are very important. One of the most serious threats to stability in a school district is frequent turnover in the ranks of superintendents, principals, and vice principals. Instability at the school level often reflects a failure of management at the district level.

Alternative Models of Leadership Reflected in the Literature

Leadership in non-school contexts. Research on leadership in non-school contexts is frequently driven by theory referred to by one of our colleagues as “adjectival leadership models.” A recent review of such theory identified, for example, 21 leadership approaches that have been objects of considerable theoretical and empirical development.¹¹ Seventeen have been especially attractive, and some of them have informed research in school contexts.¹² Here are some examples.

- *Contingent leadership.* Encompassing research on leadership styles, leader problem solving, and reflective leadership, this two-dimensional conception of leadership explains differences in leaders’ effectiveness by reference to a task or relationship style and to the situations in which leaders find themselves. To be most effective, according to this model, leaders must match their styles to their settings.
- *Participative leadership.* Addressing attention to leadership in groups, shared leadership,¹³ and teacher leadership,¹⁴ this model is concerned with how leaders involve others in organizational decisions. Research informed by the model has investigated autocratic, consultative, and collaborative sharing styles.
- *Transformational and charismatic leadership.* This model focuses on ways in which leaders exercise influence over their colleagues and on the nature of leader-follower relations. Both forms of leadership emphasize communicating a compelling vision, conveying high performance expectations, projecting self confidence, modeling appropriate roles, expressing confidence in followers’ ability to achieve goals, and emphasizing collective purpose.¹⁵

Leadership in education. Leadership research also has been informed by models developed specifically for use in school- and district-level settings. Of these, the instructional leadership model is perhaps the most well known. (It bears some resemblance to more general, task-oriented leadership theories.¹⁶) The instructional leadership concept implies a focus on classroom practice. Often, however, specific

¹¹ Yammarino, Dionne, Chun, & Dansereau (2005).

¹² Leithwood & Duke (1999).

¹³ E.g., Pearce & Conger (2003).

¹⁴ E.g., York-Barr & Duke (2004).

¹⁵ E.g., Leithwood & Jantzi (2006).

¹⁶ Dorfman & House (2004).

leadership practices required to establish and maintain that focus are poorly defined. The main underlying assumption is that instruction will improve if leaders provide detailed feedback to teachers, including suggestions for change. It follows that leaders must have the time, the knowledge, and the consultative skills needed to provide teachers—in all the relevant grade levels and subject areas—with valid, useful advice about their instructional practices. While these assumptions have an attractive ring to them, they rest on shaky ground, at best; the evidence to date suggests that few principals have made the time and demonstrated the ability to provide high quality instructional feedback to teachers.¹⁷ Importantly, the few well-developed models of instructional leadership posit a set of responsibilities for principals that go well beyond observing and intervening in classrooms—responsibilities touching on vision, organizational culture, and the like.¹⁸

In addition, studies of school leadership are replete with other adjectives purporting to capture something uniquely important about the object of inquiry—for example, learning leadership,¹⁹ constructivist leadership,²⁰ and change leadership.²¹ Few of these efforts, however, have been products of a sustained line of inquiry yielding the sort of evidence needed to justify their claims. This observation influenced our approach as we began our study. Eschewing any particular model of leadership, we examined the actual practices, across models, for which there was significant evidence of desirable effects.

Significant Features of Our Research

The investigation reported here was among the largest of its kind at the time we conducted it. Its particularly noteworthy features, as against other educational leadership studies, include the size of the data base, the use of multiple theoretical and methodological approaches to the research, and the comprehensive sources of leadership examined.

Size of the data base. We collected data from a wide range of respondents in nine states, 43 school districts, and 180 elementary, middle, and secondary schools. At the state level, we conducted interviews with legislators, stakeholders, and members of state education agencies. In districts, we interviewed senior district leaders, elected board members, representatives of the media, and other informants. We used survey instruments and interviews with teachers and administrators, and we conducted classroom observations with most of the teachers we interviewed. We collected survey data in the first and fourth years of the study; we conducted interviews in districts and schools in three cycles over the five years of the project. These efforts yielded, by the end of the project, survey data from a total of 8,391 teachers and 471 school administrators; interview data from 581 teachers and administrators, 304 district level informants, and 124 state personnel; and observational data from 312 classrooms. Finally, we obtained student achievement data for literacy and mathematics in elementary and secondary grades, using scores on the states' tests for measuring Adequate Yearly Progress as

¹⁷ E.g., Nelson & Sassi (2005).

¹⁸ Andrews & Soder (1987), Duke (1987), and Hallinger (2003).

¹⁹ Reeves (2006).

²⁰ Lambert et al. (1995).

²¹ E.g., Wagner et al. (2006).

mandated by the No Child Left Behind Act of 2002. (For a detailed description of the data base, see the Methodological Appendix.)

Multiple methodological approaches. We used qualitative and quantitative methods to gain certain advantages associated with multiple-methods research. The advantages typically include “rich opportunities for cross-validating and cross-fertilizing...procedures, findings, and theories” (Brewer & Hunter, 1989, p. 13). Our particular use of multiple methods offered opportunities that we had not fully appreciated in the early stages of our work. These included opportunities to discover significant patterns and relationships in our quantitative evidence, which we were then able to pursue in greater depth, thanks to our qualitative evidence. One example appears in Section 2.2. From the analysis of our first-round survey data we found that one of the most powerful sources of districts’ influence on schools and students was through the development of school leaders’ collective sense of efficacy about their jobs. With this connection well established quantitatively, we then mined principal-interview data to learn in greater detail what districts actually did to develop a sense of efficacy among principals. Similar examples of this approach to our data can be found in Sections 2.4, 2.5, and (taken as a whole) Sections 1.1 to 1.3.

Multiple theoretical perspectives. In collecting data and working to make sense of our results, we drew upon conceptual tools from sociology, socio-psychology, political science, and organizational theory. Sociological concepts informed our understanding of shared leadership (1.2), contexts for leadership (1.5), and community engagement (2.1). Socio-psychological perspectives helped us analyze leader efficacy (2.2) and (along with organizational theory) the nature of successful leadership practices (1.4), as well as the use of evidence in districts and schools (2.5), and leader succession (2.4). Political science concepts framed our research about state leadership (3.1).

Our goal with this seemingly eclectic approach was to draw on the theoretical perspectives best suited to the question at hand—an approach especially well suited to a project like ours with multiple principal investigators who had studied and used each strand of theory in their prior work. We shared the view that using multiple methods and theoretical perspectives can provide a powerful antidote to the unintended self-deceptions that sometimes arise from the use of more unitary approaches. Our approach, however, also challenged us to develop a valid and coherent storyline from the data. In that effort, inevitably, we have sacrificed some measure of coherence in order to present a rich account of our findings.

Comprehensiveness of sources of leadership. Most leadership studies in education focus on a single institutional role. The bulk of it focuses on the principals’ role,²² with a growing but still modest body of attention to district-level leadership.²³ Over the past decade, researchers have also begun to study leadership provided by teachers.²⁴

²² E.g., Robinson et al. (2008).

²³ Marzano, Waters & McNulty (2005).

²⁴ York-Barr & Duke (2004).

The recent flurry of attention to a broader spectrum or distribution of leadership has begun to sensitize us to the remarkable array of people who exercise formal or informal leadership in schools and districts. Research of this sort also shows that the influence of leadership on organizational outcomes arises from the behaviors of these various people acting as leaders in either an “additive” or “holistic” manner (Gronn, 2009). We cannot push our understanding of leadership influence much further without considering the many sources of leadership in the education system and also the web of interaction created by these sources. To date, our study is one of only a few to have examined leadership at each organizational level in the school system as a whole—state, district, school, classroom, and community.

The comprehensive approach reminds us that every leader is at the same time constrained and enabled in some measure by the actions of others (including other leaders), and by the consequences of those actions. Without a better understanding of such antecedents and consequences, we are left with an impoverished appreciation of why leaders behave as they do. Invoking social theory, the more comprehensive perspective has the potential to shift the field of educational leadership research from a dominant preoccupation with “agency” (explaining leaders’ behaviors as a function of individual capacities, motivations, and traits), toward a more balanced understanding of how the structures within which leaders work also shape the work that they do.

Framework Guiding the Study

The framework guiding our study emerged from a review of scholarship completed prior to our data collection and summarized in Figure 1.²⁵ According to information summarized in this figure, features of state and district policies, practices, and other characteristics interact with one another and exert an influence on what school leaders do. These features also influence conditions in schools, classrooms, and the professional community of teachers (for the sake of simplicity, we do not connect these variables in Figure 1). Other stakeholder groups, including the media, unions, professional associations, and community and business groups also influence school leadership practices. And of course leaders are influenced by their own professional learning experiences and by student and family backgrounds.

²⁵ Leithwood, Louis, Anderson, & Wahlstrom (2004).

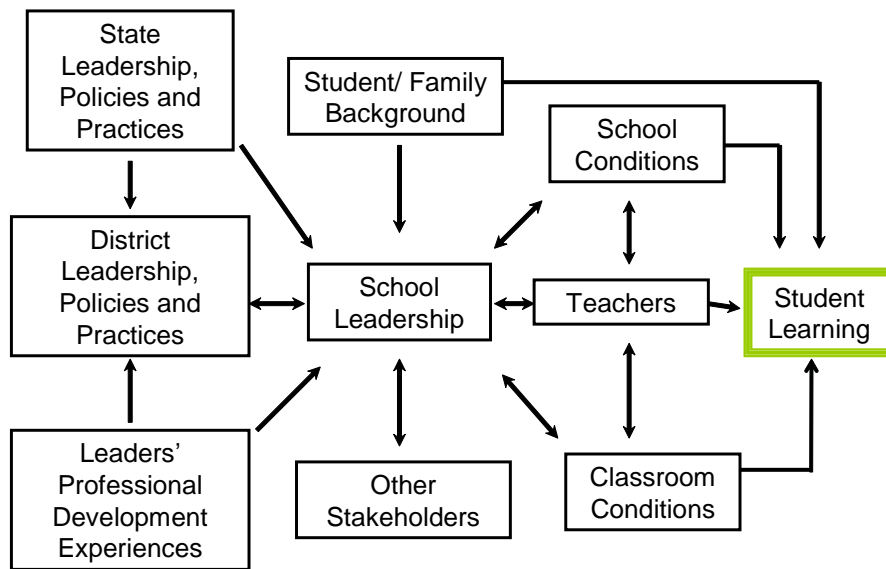


Figure 1. Leadership Influences on Student Learning

School leadership, from formal and informal sources, helps to shape school conditions (including, for example, goals, culture, and structures) and classroom conditions (including the content of instruction, the size of classrooms, and the pedagogy used by teachers). Many factors within and outside schools and classrooms help to shape teachers’ sense of professional community. School and classroom conditions, teachers’ professional communities, and student/family background conditions are directly responsible for the learning of students.

Overview of the Report

The six-year study reported here focuses on leadership at the school, district, and state levels. The report is organized in three main parts, with one part dedicated to each leadership level. Within each part (following a preface) there are three to six sections describing the results of sub-studies conducted within the larger project, in pursuit of specific research goals.

Each section begins with an overview of the significant findings for that particular sub-study. We chose to provide the Key Findings at the beginning as a way to orient the reader’s attention to the details that follow. Also, each section concludes with “Implications for Policy and Practice”. Again, we wanted to direct the reader’s thinking to what could or should be done in schools and districts to support or improve reform efforts. Our assertions for changes in policy and practice, as based on our findings, are not intended to be definitive, but rather as a starting place for the reader.

Part One focuses on school-level leadership. It summarizes three perspectives on the sources and distribution of school-level leadership practices; it identifies effects on

students and features of the school that influence the size of those effects; and it describes successful leadership practices.

Part Two focuses on school district leadership. It describes ways in which districts engage parents and the community in their school-improvement efforts; it explores the impact of such engagement on students; it tells how districts develop school leaders' sense of efficacy; it explains what districts can do to ensure productive leader succession; and it describes ways in which typical and exemplary districts use school data. One section of Part Two paints a broad and integrated picture of district approaches to improving teaching and learning.

Part Three focuses on state-level leadership. Three sections describe variations in the forms of leadership exercised by states through the development and implementation of education policy. A fourth section describes the leadership provided by state education agencies and the quite different relationship districts develop with their states.

Part One

What School Leaders Do to Improve Student Achievement

Preface

With its focus on school-level leadership, Part One seeks to identify, elaborate, and clarify existing knowledge about successful leadership practices. Because leadership is enacted by many people in schools, we begin by addressing the nature, causes, and consequences of the alternative forms and patterns of leadership among school and district staff members. Our evidence about leadership distribution contributes to an ongoing conversation among researchers and practitioners aimed at determining implications for school improvement.²⁶

To obtain evidence about leadership distribution and its effects, we conducted our examination through the use of distinctly different lenses. Our observations made by way of these lenses yield a richer understanding of leadership distribution than we could have attained via a narrower approach.

Section 1.1 is concerned with the influence various stakeholders (parents and other community members, for example) may have on school decisions. Our work in this section has some bearing on the definition of *leadership*. Many texts describe *leadership* as an ambiguous, evolving concept, yet to be clearly defined.²⁷ Indeed, Stogdill argued many years ago that “there are almost as many definitions of leadership as there are persons who have attempted to define the concept” (1974, p. 259). Our own reading suggests, however, that Yukl is correct in claiming that almost all definitions assume leadership entails at least some form of social influence which might be “viewed as a property of an individual or a property of a social system” (1994, p. 3). *Collective leadership*, for our purposes, is defined by this minimalist but basic conception of leadership-as-influence—and as a property of the system rather than an individual.

Evidence about collective leadership reported in Section 1.1 reveals the extent of influence exercised by most stakeholders in and around schools on decisions in the school. This section also indicates that there is considerable variation across schools in the nature and extent of stakeholders’ influence, and it suggests that student achievement benefits from relatively greater influence by all stakeholders in school decisions.

Section 1.2 adopts a “shared” conception of distributed leadership, one typically reflecting a group- or team-level approach in which all members share responsibility for leading contingent upon the task, the time required, and the expertise needed.²⁸ In their recent text on shared leadership, Pearce and Conger (2003) trace the roots of this conception to two early studies. The first of these (Follett, 1924) essentially advocated

²⁶ Comprehensive overviews of this research can be found in Harris (2009), and Leithwood, Harris & Hopkins (2008), for example.

²⁷ E.g., Rost (1991).

²⁸ Yammarino et al. (2005).

leadership through expert rather than positional power, whereas the second (Bowers & Seashore, 1966) provided evidence that peer sources of leadership in large organizations could have significant effects on organizational outcomes.

We stipulated a narrower conception of shared leadership for the research reported in Section 1.2. This conception is oriented toward shared and contingent responsibility, but it focuses on leadership exercised by those most directly responsible for student learning—principals and teachers. Section 1.2 examines the effects on students of principals and teachers assuming shared responsibility for leadership; it also identifies some conditions that influence the emergence and mediate the effects of this approach to leadership in schools.

The examination of distributed leadership in Section 1.3 introduces explicit leadership practices. By reference to a qualitative data set, this section discloses who enacts which practices, how different patterns of leadership enactment emerge, and whether variation in such patterns makes a difference for schools and students. Viewed from a principal's perspective, this research also suggests implications for how leadership might be distributed more productively in schools.

Sections 1.4 and 1.5 identify the actual practices or behaviors, however distributed, giving rise to leadership influence on teaching and learning. Both sections report the perceptions of principals and teachers, selected according to quite different criteria, about the leadership practices they believe are helpful in improving classroom instruction. Section 1.4 is informed by a synthesis of results from a body of prior evidence about leadership practices demonstrably successful across organizational sectors and national cultures.²⁹ Using qualitative evidence from principals and teachers, this section assesses the relevance of these practices across different school contexts and provides greater detail about how they are enacted in those contexts.

In Section 1.5, we take an additional step in our efforts to identify productive leadership practices. We adopt a grounded-theory approach to a different set of data, also collected from principals and teachers. This sub-study distinguishes between efforts by school leaders to create a vision and climate among staff members, on the one hand, and, on the other, the actions leaders take to realize that vision. Together, Sections 1.4 and 1.5 offer a detailed account of the leadership behaviors deemed by those closest to the action to be influential in shaping teachers' work with students. These sections also point to substantial differences in the extent to which these actions are enacted by formal leaders in elementary as compared to secondary schools.

Section 1.6, building on analyses from the previous two sections, demonstrates that leaders, to be successful, need to be highly sensitive to the contexts in which they work. From one perspective, such contexts moderate (enhance or mute) the influence of any given set of leadership practices. From a more practical perspective, different

²⁹ For example, see Leithwood et al. (2006); Robinson et al. (2008); and Waters et al. (2003).

contexts call for quite different enactments of the same basic set of successful leadership practices.

Section 1.7 synthesizes implications for policy and practice arising from the six sections in Part One.

1.1 Collective Leadership Effects on Teachers and Students

Key Findings

- Collective leadership has a stronger influence on student achievement than individual leadership.
- Almost all people associated with high-performing schools have greater influence on school decisions than is the case with people in low-performing schools.
- Higher-performing schools award greater influence to teacher teams, parents, and students, in particular.
- Principals and district leaders have the most influence on decisions in all schools; however, they do not lose influence as others gain influence.
- Schools leaders have an impact on student achievement primarily through their influence on teachers' motivation and working conditions; their influence on teachers' knowledge and skills produces less impact on student achievement.

Introduction

Collective leadership, as the term is used in this component of our study, refers to the extent of influence that organizational members and stakeholders exert on decisions in their schools. This relatively narrow but fundamental perspective on leadership focuses attention on the combined effects of all sources of leadership, along with possible differences in the contributions made by each of these sources (e.g., administrators, teachers, students, parents). Guided by this conception of leadership, the sub-study set out to estimate the following:

- the relative influence on school decision making of each of the individuals or groups potentially contributing to a school's collective leadership;
- the impact of collective leadership on teacher feelings and beliefs and on student learning; and
- whether differences in the extent of influence exerted by the respective participants is related to differences in levels of student achievement.

Prior Evidence

Leadership as Influence

The conception of collective leadership used for this study overlaps with Rowan's conception of organic management, defined as follows:³⁰

a shift away from conventional, hierarchical patterns of bureaucratic control toward what has been referred to as a network pattern of control, that is, a pattern of control in which line employees are actively involved in [making] organizational decision[s,] [and] staff cooperation and collegiality supplant the hierarchy as a means of coordinating work flows and resolving technical difficulties. (Miller & Rowan, 2006, p. 219-220)

Conceptualizing collective leadership as a network of influence and control also locates our study in relation to other research about organizational control structures. A seminal paper by Tannenbaum (1961), for example, introduced the "control graph" as a means of displaying patterns of control in formal organizations. The horizontal axis of a control graph designates each of the "levels" (designated positions) in the organization, while the vertical axis represents the degree of perceived influence or control exercised at each level. Tannenbaum used the control graph to illustrate four prototypical control modes or approaches to leadership: *autocratic* (influence rises with the hierarchical level of the role), *democratic* (higher levels of influence are ascribed to those in hierarchically lower levels or roles), *anarchic* (relatively little influence by any level or role), and *polyarchic* (high levels of influence by all levels or roles). Reflecting Rowan's (1990) expectations for organic management under conditions of uncertainty, Tannenbaum also hypothesized that organizational effectiveness will be related to: (a) more democratic, and (b) more polyarchic forms of control.

The first of these hypotheses arises from two sets of expectations. First, more democratic forms of control will be more consistent with employees' beliefs and values in a democratic society and contribute to higher levels of job satisfaction and morale, whereas autocratic forms of control are expected "to reduce initiative, inhibit identification with the organization and to create conflict and hostility among members" (Tannenbaum, 1961, p. 35). Second, more control by those lower in the hierarchy will lead to greater acceptance of jointly-made decisions along with an increased sense of responsibility for and motivation to accomplish organizational goals. Such participation may also contribute to more effective coordination through mutual influence mechanisms.

The second of Tannenbaum's hypotheses, sometimes called the "power equalization" hypothesis, is justified, Tannenbaum claims, by certain results—by improved organizational efficiency realized when more control is exercised by those lower in the hierarchy, and by improved motivation and identification with the organization on the part of those whose power is enhanced. Reasons offered in the

³⁰ Miller & Rowan (2006); Rowan (1990).

current literature about distributed leadership are quite similar to the justification Tannenbaum's offers for his two hypotheses.

Collective Leadership Effects

What evidence is there to show that democratic, supportive, and shared forms of leadership are effective? Some empirical evidence may be found in research on teacher participation with peers in planning and decision making³¹ and in research on transformational leadership.³² Several lines of related theory also give rise to expectations of a positive association between organizational effectiveness and the distribution of influence, including theories of organizational learning,³³ distributed cognition,³⁴ and communities of practice.³⁵

Nonetheless, there is substantial evidence to the contrary, especially from research in which organizational effectiveness is defined as the organization's bottom line (some measure of productivity) and assessed using objective indicators, such as student test scores. Tannenbaum was able to provide only limited support for his hypotheses about organizational control structures. And after about 15 years of programmatic research about organic management, Miller and Rowan reported that "the main effects are weak[,] and positive effects appear to be contingent on many other conditions" (2006, p. 220). A recent, comprehensive review of research on teacher leadership found only a small handful of studies in which researchers had actually inquired about effects of teacher leadership on students, and the results were generally not supportive.³⁶

To date, most research about school leadership has focused on the work of teachers and school administrators. It is certainly possible, however, to conceive of people acting in other roles—as parents, students, interested members of the community—to exercise influence in schools. The work of Pounder, Ogawa and Adams (1995) provides one example (there are not many) of research that examines leadership exercised by a broader array of participants. Pounder et al. test a model of the influence of principals, teachers, parents, and secretaries on a number of mediating variables, as well as a range of school outcomes, providing a useful model for our approach a decade later .

The current sub-study looks beyond the school setting in its examination of leadership. Staff members in district roles also have an obligation to influence what schools do, although most studies of collective, shared, and distributed leadership have not examined the contribution of district personnel.³⁷ Our study concerned itself with all of these potential sources of influence.

³¹ Talbert & McLaughlin (1993).

³² Leithwood & Jantzi (2005).

³³ Hutchins (1996).

³⁴ Perkins, 1993; Tsoukas (2005).

³⁵ Wenger, McDermott & Snyder (2002).

³⁶ York-Barr & Duke (2004).

³⁷ But see Firestone (1989), and Firestone & Martinez (2007).

Antecedents of Teacher Performance

Miller and Rowan (2006) sought to assess certain effects of organic management. In this effort they did not attend to variables potentially mediating the effects of leaders on student learning. This is an important limitation, given prior work (Pitner, 1988; Hallinger & Heck, 1996a) showing that the effects of leadership on students are largely indirect. Studies designed to explore direct effects of leadership rarely detect significant effects, whereas many studies of indirect effects do. Most studies since 1996 have been guided by complex causal models which include a wide array of potential mediators.³⁸

The framework for this sub-study assumed indirect leadership effects and conceptualized as mediators a set of teacher performance antecedents including motivation, capacity, and the situations in which people work. These are variables in a general model of employee performance and how it improves. Our own modification of this framework is based on theoretical and empirical accounts of the conditions required for development of motivation and capacity on the part of school people to engage productively in improvement efforts. Our modification also incorporates accounts of organizational conditions and characteristics of the infrastructure which facilitate the successful implementation of large-scale reform, or what van den Berg, Vandenberghe, and Slegers (1999) refer to as the organization's "innovative capacity."³⁹

New Evidence

Method

Sample. This sub-study is based on data collected in the first round of surveys for the larger study. The achieved sample included responses by 2,570 teachers (77% response rate) from a total of 90 schools in which seven or more teachers completed usable surveys and for which usable student achievement data were available.⁴⁰ Table 1.1.1 below presents a summary of the characteristics of our achieved sample.

TABLE 1.1.1
Sample School Characteristics

	Mean	SD
Student Diversity (1=Low, 3 = High)	1.97	.71
Percent of Students Eligible for Free Lunch	43.82%	27.67
Achievement (Mean % at Proficiency or Above)	67.19%	24.27

³⁸ For example, Leithwood & Levin (2005) and Leithwood, Louis, Anderson, & Wahlstrom (2004).

³⁹ For a more detailed explanation of how these variables were defined and measured, see Leithwood & Jantzi (2008).

⁴⁰ We were able to generate data on the SES of only 76 of these schools, so the calculations for tables drawing on SES have been adjusted to use this smaller sample.

Sources of evidence. To measure student achievement across schools, we collected data from state websites. These data comprised school-wide results on state-mandated tests of language and mathematics at several grade levels over three years (2003 to 2005). We represented a school's level of student achievement by the percentage of students meeting or exceeding the proficiency level (usually established by the state) on language and mathematics tests. We averaged these percentages across grades and subjects in order to increase the stability of scores,⁴¹ arriving finally at a single achievement score for each school for each of three years. Our analysis also included an achievement change score, calculated as the gain in percentage of students attaining or exceeding the state-established proficiency level from the first to the third year for which we had evidence.

Teacher responses to 49 items from a 104-item survey provided the remaining data for this sub study. The survey, which required about 20 minutes to complete, measured the collective leadership and teacher-performance antecedents described in our framework: 9 items measured collective leadership, 9 items measured teacher capacity, 17 items measured teacher motivation, and 14 items measured teacher work settings or conditions. Each of the nine items used to measure collective leadership pertained to a single source of influence from a set including district administrators, principals, other school administrators, some individual teachers, teachers with designated leadership roles, staff teams, some individual parents, parent advisory groups, and students. About each source of influence, we asked respondents to rate the extent of direct influence on school decisions (on a 6-point scale). We also asked respondents to rate the extent to which they agreed with statements about each of the three antecedents of teacher performance, also on a 6-point scale.

Analysis. We merged individual responses to the teacher survey, aggregated to the school level, with school-level student achievement results. We used SPSS to calculate means, standard deviations, and reliabilities (Cronbach's alpha) for scales measuring the four variables. We used paired-sample *t*-tests to compare mean ratings of various sources of leadership. We tested the factor structure of the teacher variables included in the study. We used hierarchical multiple regression to examine the moderating effects of student SES on some relationships in our framework. Finally, we used LISREL to test a model of the relationships among collective leadership, teacher motivation, capacity and setting, and student achievement. This path-analytic technique allows for testing the validity of causal inferences for pairs of variables while controlling for the effects of other variables. We analyzed data using the LISREL 8.80 analysis of covariance structure approach to path analysis and maximum likelihood estimates.⁴² We used four goodness-of-fit statistics to assess the fit of our path model with the data: the Root Mean Square Error of Approximation test (RMSEA), the Norm-fit index (NFI), the adjusted Goodness of Fit index (GFI) and the mean Root Mean Square Residual (RMR).

⁴¹ Linn (2003).

⁴² Joreskog & Sorbom (1993).

Results

We begin with a summary of responses to the teacher survey and with information about the statistical properties of our measures, including the results of a factor analysis of the measures of teacher capacity, motivation, and setting. The remaining sections report evidence relevant to each of three questions addressed by the study: the impact of collective leadership on key teacher variables and student learning; the relative influence of different collective leadership sources; the relationship between different patterns of collective leadership and student achievement.

Table 1.1.2 reports the internal reliabilities (Cronbach's alpha) of the scales used to measure each of the three antecedents of teacher performance—capacity, motivation and work setting—and the measure of collective leadership. Overall mean ratings of the three antecedents are not reported because z-scores had to be calculated to accommodate the use of different response scales. We calculated variable reliabilities using z-scores. Responses to all variables ranged between slight agreement and moderate agreement, with low to moderate standard deviations. All scales achieved acceptable levels of reliability (between .72 and .96).

TABLE 1.1.2
Scale Reliability for Variables
(N = 90 Schools)

	Cronbach's Alpha
Capacity	.86
Motivation	.96
Setting	.91
Collective leadership	.72

Note: z-scores were used to calculate the aggregate values for the capacity, motivation, and setting scales. Collective leadership was calculated from the sum of nine sources of leadership, each rated on a 6-point scale from 'no influence' to 'very great influence.'

Of the 40 items used to measure the three teacher antecedents, 9 measured capacity, 17 measured motivation, and 14 measured work setting. We analyzed the dimensionality of these 40 items using principal component factor analysis. We used the scree test and the interpretability of the factor solution to determine the number of factors to rotate. We rotated three factors using a Varimax rotation procedure. The rotated solution yielded three interpretable factors which corresponded very closely with the three variable categories: capacity, motivation, and setting. The capacity factor accounted for 14.4% of the item variance; the motivation factor accounted for 13.9% of the item variance; and the setting factor accounted for 8.6% of the item variance.

Although our initial conception of the three teacher variables suggested a number of distinct sub-dimensions, these were not supported by the factor analysis. Thus, we used aggregate scores for each of the three teacher-performance antecedents in all

subsequent analyses. Also in response to the results of the factor analysis, we omitted two of the original items measuring capacity and seven of the items measuring motivation from subsequent analysis.

Collective Leadership Effects on Teachers and Students

Table 1.1.3 reports correlations among measures of all variables in the study. As these results indicate, collective leadership is significantly related to all three teacher variables. The strongest relations are with collective leadership and teachers' work setting ($r = .58$), followed by teacher motivation ($r = .55$). All variables but teacher capacity are significantly related to student achievement: teachers' work setting has the strongest relationship ($r = .37$), followed by teachers' motivation and collective leadership ($r = .36$ and $.34$). These data also indicate significant relationships among the teacher variables.

TABLE 1.1.3
Relationship between Survey Variables and Student Achievement
Pearson Product-Moment Correlation Coefficients
(N = 90 Schools)

	Coll. Lead.	Capacity	Motivation	Setting	Achievement
Collective leadership	1.00	.36**	.55**	.58**	.34**
Capacity	.36**	1.00	.44**	.20	.01
Motivation	.55**	.44**	1.00	.54**	.36**
Setting	.58**	.20	.54**	1.00	.37**
Achievement	.34**	.01	.36**	.37**	1.00

** p < 0.01 level, (2-tailed).

The path model described in Figure 2 (using LISREL) and Table 1.1.4 provides a further test of relationships among collective leadership, teacher capacity, motivation and work setting, and student achievement. This model is an excellent fit to the data (RMSEA = .00; RMR = .03; AGFI = .93; NFI = .99) and, as a whole, explains 20% of the variation in student achievement. Collective leadership has significant direct effects on all teacher variables. Its strongest effects are on teachers' work setting ($r = .58$), followed by teacher capacity ($r = .36$) and motivation ($r = .25$). Collective leadership accounts for only 13 % of the explained variation in teacher capacity.

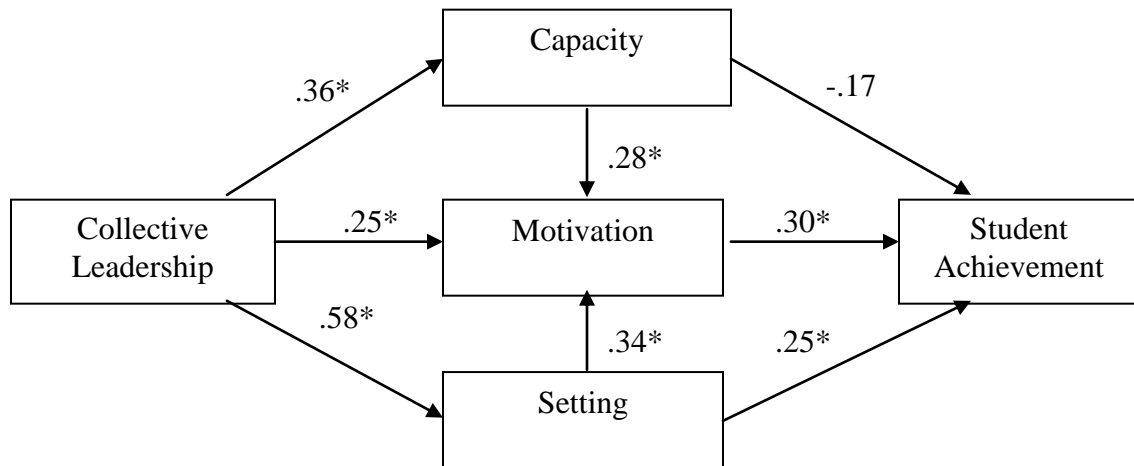


Figure 2. Testing a model of collective leadership effects on student achievement⁴³

⁴³ While a number of iterations of our framework were run, testing relationships in a variety of ways, we present here only the results that have proved statistically significant. The LISREL model presented has Chi-square = 1.97, df = 2, p = .37.

The paths linking the three teacher variables to student achievement indicate that collective leadership influences student achievement through teacher motivation and work setting. The effect of teachers' work setting on achievement is significant (.25), but the effect of teacher capacity is insignificant. Total effects on student achievement are greatest for work setting, followed by teacher motivation and the indirect influence of collective leadership. The higher effect for setting is explained by its indirect effect through motivation, as indicated in the data presented in Table 1.1.4.

Table 1.1.4
Results of Structural Equations Modeling

Variable	Residuals (Explained Variables)	Total Effect on Achievement		
		Indirect	Direct	Total
Achievement	.80 (.20)			
Capacity	.87 (.13)	.08	-.17	-.09
Motivation	.56 (.44)		.30*	.30*
Setting	.66 (.34)	.10*	.25*	.35*
Collective Leadership		.24*		.24*
Fit Indices				
Root mean square error of approximation	.00			
Root mean square residual	.03			
Adjusted goodness of fit index	.93			
Norm fit index	.99			

Note: $R^2 = .20$

* $p < .05$

In order to estimate the contribution of student SES (calculated as the percentage of students in a school eligible for free or reduced lunch) to relationships described in the path model between the three teacher variables and student achievement, we computed three hierarchical regressions. In each regression equation SES was entered first, collective leadership second, and one of the teacher variables third.⁴⁴ Results of these hierarchical regressions, described in Table 1.1.5, indicate that only motivation explains a unique and significant proportion of variation in student achievement after controlling for student SES. Motivation, on its own, explained 6% of the variation in achievement, whereas setting increased the variation explained by only 1% in combination with SES and leadership, and capacity decreased the explained variance by the same amount.

⁴⁴ Readers should note that the order in which variables are added to the model has an influence on the strength of the relationship. In our analysis, leadership adds 3.6% to the 11.3% explained variance from SES. Entering collective leadership first explains 9.2%; introducing SES at step 2 provides an additional 5.7% for the same total of 14.9%. If they are entered at the same time, SES explains 6.8%, leadership explains 4.6%, and their combined effect explains the other 3.5% to the total 14.9%.

Table 1.1.5
Results of Hierarchical Regression Measuring Effects of Teacher Capacity,
Teacher Motivation, and Setting on Student Achievement
after Controlling for SES and Collective Leadership
(N = 76 Schools)

Capacity		R²	F
Step 1: Percentage of Students Eligible for Free Lunch (SES)		.11	10.57**
Step 2: Add Collective Leadership		.15	7.55**
Step 3: Add Teacher Capacity		.14	4.99**
Step 3 Significant Unique Effects		Beta	t
SES		-.27	2.39*
Motivation		R²	F
Step 1: Percentage of Students Eligible for Free Lunch		.11	10.57**
Step 2: Add Collective Leadership		.15	7.55**
Step 3: Add Teacher Motivation		.20	7.23**
Step 3 Significant Unique Effects		Beta	t
SES		-.29	2.66*
Motivation		-.29	2.37*
Setting		R²	F
Step 1: Percentage of Students Eligible for Free Lunch		.11	10.57**
Step 2: Add Collective Leadership		.15	7.55**
Step 3: Add Setting		.16	4.60**
Step 3 Significant Unique Effects		Beta	t
SES		-.24	2.04*

In sum, these results indicate the following:

- Our model as a whole explains a significant proportion (20%) of variation in student achievement across schools.
- Collective leadership has modest but significant indirect effects on student achievement.

- Of the three teacher variables, the influence of collective leadership on students operates through its influence on teacher motivation and work setting.
- While collective leadership does have a significant effect on teacher capacity, this variable is not significantly linked to student achievement.

These results confirm, in some respects, and contradict, in others, evidence from two of our earlier studies. One earlier study incorporated approximately the same measures used in the present study of teachers' capacity, motivation, and work setting.⁴⁵ Instead of collective leadership, however, that study used a measure of individual leaders' transformational practices. In that study, as in the present one, leadership was most strongly related to teachers' work setting and had weaker effects on teacher capacity than on teacher motivation. This earlier study also reported weaker effects of (likely individually provided) transformational leadership practices on student achievement as compared with the effects of collective leadership in the present study. This comparison of results provides encouragement, at least, for claims about benefits accruing to students when leadership is more widely distributed in schools.

Our second earlier study also differed in several important respects from the present study, but it addressed several of the same questions.⁴⁶ Student engagement rather than student achievement was used as the dependent variable, and the variables mediating leaderships' influence on students were different from those used in the present study. The measure of collective leadership, however, was almost identical to the measure used in the present study. In contrast to the main findings of present study, this earlier study found non-significant, negative effects of collective leadership on students. This important difference in results offers at least modest support for the argument that the choice of mediating variables is a crucial matter in studies of leadership effects on students.⁴⁷

The differences we have noted among our three studies might well be accounted for by non-trivial differences in their designs. To this point, consistency is greatest in respect to the effects of collective leadership on teachers' internal states. Specifically, collective leadership has so far not been shown to have a demonstrable impact on our measures of teacher capacity. Also, claims that collective leadership has significant impact on students have received mixed support. Evidence from other recent studies, however, seems to provide further support for this claim, although this evidence has been collected in contexts quite unlike the schools for which we have data. For example, Hiller, Day and Vance (2006) recently reported significant effects of collective leadership on supervisor-rated team performance in a road maintenance department. They also reviewed evidence from six other studies of collective leadership effects on team effectiveness, concluding that collective leadership is likely to be effective:

⁴⁵ Leithwood & Jantzi (2006).

⁴⁶ Leithwood & Riehl (2005).

⁴⁷ Hallinger & Heck (2002).

when teams are engaged in complex tasks that require large amounts of interdependence, but under more routine conditions...the benefits of collective leadership have yet to be demonstrated (2006, p. 388).

The Relative Influence of Collective Leadership Sources

To address this issue, we analyzed teachers' ratings of the extent of influence on school decisions of the nine measured sources of collective leadership. Table 1.1.6 reports the mean response of teachers to each source. We calculated paired-samples *t*-tests to estimate the significance of differences in these ratings. As Table 1.1.6 indicates, principals and district administrators were given the highest, almost identical ratings ($M = 5.30$ and 5.28 , respectively). The small standard deviations of these ratings indicate considerable agreement among respondents about the perceived influence of people acting in these two roles. There is a significant drop in the rating of the next-most influential role: building-level administrators other than the principal, typically the assistant principal ($M = 4.75$).

TABLE 1.1.6
Means and Standard Deviations for Sources of Leadership
Ranked from Least to Most Direct Influence
(N = 90 Schools)

	Mean	SD
Students	3.49	.41
Parent Advisory Groups	3.84	.58
Some Individual Parents	3.96	.49
Some Individual Teachers	4.28	.30
Staff Teams (e.g., depts. grade levels)	4.36	.41
Teachers with Designated Leadership Roles	4.43	.37
Other (not principal) Building-level Administrators	4.75	.41
District-level Administrators	5.28	.31
Principals	5.30	.28
Collective Leadership Aggregate	4.42	.24

Rating Scale: 1 = None, 2 = Very Little, 3 = Little, 4 = Some, 5 = Great, 6 = Very Great

Among teacher sources of influence, teachers with designated leadership roles were perceived to have the strongest influence ($M = 4.43$), followed by staff teams ($M = 4.36$) and then some individual teachers ($M = 4.28$); the ratings of teachers with formal leadership roles were significantly higher than the ratings of staff teams ($t = 3.51, p < .01$) or some individual teachers ($t = 5.54, p < .001$), and the rating of staff teams was significantly higher than the rating of individual teachers ($t = 2.19, p < .05$).

Ratings for parents (some individual parents, and parent advisory groups) were considerably lower than for teachers, ranging from means of 3.84 to 3.96, a statistically significant difference ($t = 3.16, p < .01$). Respondents perceived students to have the lowest level of direct influence on school decisions ($m = 3.49$). The very low standard deviation of ratings for all sources of influence, especially for principals, reduces the potential strength of relationships with any other variable in our study.

Table 1.1.7 reports the relationships between each of the individual sources of collective leadership and both teacher variables and student achievement (mean annual achievement over three years). Among the teacher variables, work setting has a significant relationship with seven of the nine sources of leadership (not principals or individual teachers). This surprising result for principals may be a reflection of the low level of variation in the ratings noted above. The strongest relationship is between motivation and staff teams ($r = .71$). Capacity was the only variable significantly related to principal influence ($r = .22$); teachers' work setting was the only variable related to other building administrators ($r = .32$) and district-level administrators ($r = .41$). Teachers in formally designated roles were significantly related to all three teacher variables but not to student achievement. Staff teams, individual parents, parent advisory groups, and students all have significant relationships with student achievement. Student leadership is most strongly related to teacher motivation ($r = .55$). Parent advisory teams are most strongly related to motivation ($r = .44$) and achievement ($r = .56$); individual parents are most strongly related to achievement ($r = .43$) and weakly to setting (.34). There appears to be a differentiation between those leaders who are members of the school staff and those who are not. Staff teams have stronger relations with all three teacher variables than any of the other within-school collective leadership sources, and staff teams are the only in-school source of collective leadership related to achievement ($r = .28$).

TABLE 1.1.7
Relationship between Sources of Leadership, Mediating Variables, and Achievement
Pearson Product-Moment Correlation Coefficients
(N = 90 Schools)

	Capacity	Motivation	Setting	Achievement
Collective leadership	.36**	.55**	.58**	.34**
District Admin.	.04	.13	.41**	.09
Principal	.22*	.20	.12	-.06
Other Bldg. Admin.	-.01	-.02	.32**	-.11
Teachers Formal	.35**	.54**	.34**	.09
Staff teams	.44**	.71**	.44**	.28**
Individual Teachers	.23*	.24**	.17	-.08
Individual Parents	.16	.10	.34**	.43**
Parent Advisory	.32**	.44**	.40**	.56**
Students	.17	.55**	.52**	.30**

We were intrigued to see that the two sources of leadership consistently showing significant relationships with all three mediating variables, and with student achievement, were collectives: staff teams and parent advisory groups had significant correlations with all our mediators and with student achievement. In schools with high levels of student achievement, and high ratings for capacity, motivation, and setting, we are more likely to see higher levels of influence from staff teams and parent advisory groups. This suggests that there may be something about the collective nature of these roles which adds to their influence in the schools.

In sum, our results indicate the following:

- School decisions are influenced by a broad array of groups and people, reflecting a distributed conception of leadership.
- The degree of influence exercised by these people and groups reflects a traditional, hierarchical conception of leadership in organizations. Teachers rate the influence of traditional sources of leadership much higher than they rate non-traditional sources.
- Among teacher roles, the more formalized the leadership expectation, the greater the perceived influence.
- Nonetheless, the influence of parents and students is significantly related to student achievement. This result may reflect the well-known effects of student SES on achievement.

If the profession has become enamored of distributed forms of leadership, as one might infer from current scholarship, the responses of teachers surveyed here suggest that few changes detectable by teachers have actually occurred in schools. The ground swell of support for distributed conceptions of leadership may well be a kind of “meta-rhetoric” denoting little reality “on the ground.” This possibility is consistent with a familiar criticism of schools: that as a means of legitimizing their work, they are more concerned with the appearance than the substance of change.

Despite a decades-long effort to restructure schools—in part, at least, to give parents a greater voice in school decisions—we see little evidence that teachers perceive much influence from parents, or from students.⁴⁸ This outcome probably reflects the well-known and persistent challenges teachers and administrators face in creating authentic relationships with parents for school-improvement purposes. Our results also reinforce two other claims. First, significant change in schools requires much more than encouragement and rational argument,⁴⁹ strategies which have often been relied on to promote greater parent influence. Second, as Jaques (2003) has long maintained, hierarchy is a necessary, unavoidable feature of any large organization, even when participants add structures and procedures to encourage lateral influence within the

⁴⁸ Beck & Murphy (1998).

⁴⁹ Desimone (2006)

hierarchy. If Jaques is correct, current expectations about the extent to which leadership distribution is both possible and desirable in schools will need to be severely modified.

Patterns of Collective Leadership and Student Achievement

As we reported above, teachers on average perceived influence in their schools to be exercised in a distributed but still hierarchical manner. Nevertheless, prompted by widespread claims by many organizational theorists about the benefits of more distributed forms of leadership, we sought to learn whether variations in these perceptions of influence were related to levels of student achievement in schools. To address this question we returned to Tannenbaum's early work (reviewed above) on control graphs.⁵⁰

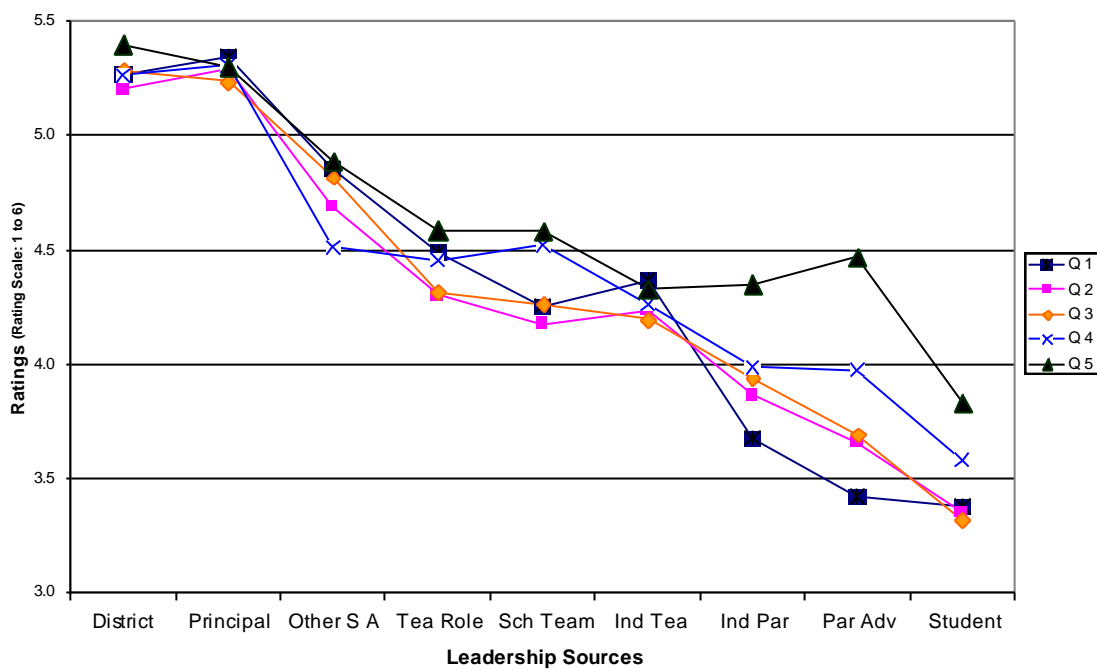


Figure 3. Relationships between Sources of Collective Leadership Influence and Student Achievement

Schools were divided into quintiles based on the mean achievement of their students on test scores over three years. So, for example, Quintile 1 = schools with the lowest mean achievement over three years and Quintile 5 = schools with the highest mean achievement over three years.

To distinguish schools by mean levels of achievement averaged over three years, we constructed a control graph of our own. As Figure 3 indicates, we first divided the schools in our sample into quintiles on the basis of mean annual student achievement scores. Then we compared teachers' ratings of each source of collective leadership influence across quintiles.

⁵⁰ Tannenbaum (1961).

Results displayed in Figure 3 indicate that teachers in the highest-achieving schools (Quintile 5) generally attributed higher levels of influence to all people and groups than did teachers in lower-achieving schools. Even though they attributed greater influence to non-traditional leadership roles in higher-achieving schools, teachers perceived that those in traditional leadership roles had the same *relative* amount of influence. For example, an increase in the influence of staff teams or parents does not mean less influence for principals and district administrators. Furthermore, teachers in schools whose students achieve in the highest and second-highest quintiles award significantly more relative influence to staff teams; teachers in the highest-quintile schools award significantly more relative influence, as well, to individual parents and to groups of parents.

Although we do not include a table reporting all correlations, we found SES to be significantly (and unsurprisingly) related to student achievement—a possible explanation for the high level of influence parents and students apparently exercise in schools in the higher quintiles of performance, which generally serve higher SES students. Three correlations seem especially interesting: those between SES and the influence of individual parents ($r = .35$), parent advisory committees ($r = .53$) and students ($r = .36$). The influence of staff teams was also related to student SES as strongly as student influence was ($r = .34$).⁵¹ Bidwell, Frank, & Quiroz (1997) provide evidence of the relationship between SES and parental involvement, and, more interestingly, between SES and levels of collegial control in schools. Schools in high-SES communities, Bidwell found, tend to build collegial professional practice among teachers and to have a particularly high focus on student learning.

This evidence indicates, in sum, that participants acting in traditional leadership roles remain highly influential in high-performing schools, a result not evident from the correlation analyses reported in Table 1.1.6. Reflecting a distinction by Dunlap and Goldman (1991) between power-over and power-through, our results illustrate the point that influence in schools is not a fixed sum. In the highest-performing schools, everyone seems to have more influence than participants in low-performing schools, where leadership may be “laissez-faire”—an approach to leadership almost invariably found to be ineffective.⁵²

Overall, we also see continuing support for Jaques’ (2003) claim about the inevitable presence of hierarchy in large organizations. Theorists who regard the attainment of “flat” organizational contours as something like a holy grail are running ahead of the evidence. Indeed, the evidence we have reviewed and the implications it suggests conform quite closely to a hypothesis prompted by Tannenbaum’s conception of control graphs (and proposed by McMahan and Perritt). A decade after Tannenbaum’s publication, McMahan and Perritt (1971) argued that organizational effectiveness may have less to do with “power equalization” than with perceived “concordance” or agreement across roles in control structures. Their research evaluated the degree to which people in different roles in the organization were in agreement about who was most

⁵¹ These correlations are all significant at the 0.01 level (2 tailed).

⁵² Avolio (1994).

influential. Their conclusion “emphasizes the importance of agreement on the perceptions of the control structure of various hierarchical echelons within an organization” (p. 339).

We are unable to test this claim directly with our own data, since teachers’ perceptions are all we have; but it is a hypothesis worthy of further research, especially in light of widespread, unfounded claims about the positive consequences of distributed leadership and flat organizational structures. The pattern of leadership distribution evident among the highest-achieving schools in our study reflects none of Tannenbaum’s prototypical models. It is, rather, a hybrid composed of “autocratic” (influence rises with hierarchical level) and “polyarchic” (high levels of influence for all) prototypes. If one were to accept the inevitability and value of hierarchy in organizing, this hybrid could serve as a best-case scenario. Let’s call it “intelligent hierarchy” to reflect the opportunities this hybrid approach affords to ensure that organizations take advantage of the capabilities and strengths of most of their members while at the same time ensuring careful coordination of effort in a common direction.

Implications for Policy and Practice

Three implications for policy and practice emerged from this section of our study.

1. In their efforts to improve student achievement, school- and district-level leaders should, as a matter of policy and practice, extend significant decisional influence to others in the school community. (See also Section 2.1.) Compared with lower-achieving schools, higher-achieving schools provided all stakeholders with greater influence on decisions. The higher performance of these schools might be explained as a consequence of the greater access they have to collective knowledge and wisdom embedded within their communities.
2. Superintendents and principals working to extend influence to others should not be unduly concerned about losing their own influence. Results reported here show that higher-performing schools awarded greater influence to most stakeholders; at the same time, little changed in these schools’ overall hierarchical structure. Our data depict the hierarchical structure of influence typically associated with roles and responsibilities in schools and districts—a structure that conforms, we believe, with Jacques’ (2003) claim about requisite hierarchy in social organizations large enough to place significant demands on the coordination of its members’ actions.
3. In responding to demands that they focus sharply on improving their teachers’ instructional capacities, school and district leaders should not overlook the influence they can have on classroom practice by continuing efforts to motivate their teachers, and to align their teachers’ work settings with what is known about effective instructional practice.

Our results show that collective leadership is linked to student achievement indirectly, through its effects on teacher motivation and teachers' workplace settings. As in several of our previous studies,⁵³ we found significant but much weaker relationships between leadership and teacher capacity. At least in part, our measure of teacher capacity may explain these results. It was primarily a measure of professional development opportunities—that is, opportunities to learn from colleagues in a variety of ways—rather than a direct measure of the knowledge and skills teachers need to foster student achievement. In effect, while principals and their co-leaders exert a significant influence on teacher access to professional learning opportunities, their power to influence the quality and impact of those activities on teacher knowledge and skills may be more limited. Thus, our finding of the absence of a strong relationship between the indirect measure of teacher capacity that we used and student achievement may simply reflect the low quality of typical professional development inputs available to teachers in schools. This qualification, however, does not diminish our finding that motivation and work settings—factors subject to leadership influence—have significant effects on student achievement. In light of this, a narrow focus on leadership efforts aimed only at building teacher capacities would be misguided.

⁵³ Leithwood & Jantzi (2006); Leithwood et al. (2004a).

1.2 Shared Leadership: Effects on Teachers and Students of Principals and Teachers Leading Together

Key Findings

- Leadership practices targeted directly at improving instruction have significant effects on teachers' working relationships and, indirectly, on student achievement.
- When principals and teachers share leadership, teachers' working relationships are stronger and student achievement is higher.
- Leadership effects on student achievement occur largely because effective leadership strengthens professional community—a special environment within which teachers work together to improve their practice and improve student learning. Professional community, in turn, is a strong predictor of instructional practices that are strongly associated with student achievement.
- The link between professional community and student achievement may be explained by reference to a school climate that encourages levels of student effort above and beyond the levels encouraged in individual classrooms.
- Students in elementary schools perform better on state tests than students in upper grades. Principal leadership practices are unable, by themselves, to overcome this difference.
- The factor of trust is less significant than the factors of instructional leadership and shared leadership (although it is associated with both).

Introduction

Section 1.1 describes the extent to which a wide array of stakeholders may influence school decisions; it also describes the effects of broadly based influence on student learning. Section 1.2 focuses more narrowly on relationships among actors within schools, examining leadership shared by principals and teachers as it may affect classroom practice and student learning.

We focus here on principals and teachers for two main reasons. First, professionals acting within schools are uniquely well positioned to affect students' classroom experience. Second, the narrower focus pushes us beyond a simple definition of leadership as influence, to a more explicit specification of the functions responsible for such influence.

Section 1.2 addresses two questions:

- Do three specific attributes of principals' leadership behavior—the sharing of leadership with teachers, the development of trust relationships among professionals, and the provision of support for instructional improvement—affect teachers' work with one another, and their classroom practices?
- Do these leadership behaviors and attributes contribute to student achievement?

Prior Evidence

Prior evidence relevant to this component of our study identifies factors related to shared leadership, school conditions mediating the effects of shared leadership, and effective classroom instruction. We focus on variables that may contribute to a school's culture and climate, including (1) variables on which principals can have some direct effect, such as principal-teacher relations, trust, and shared leadership; (2) variables on which principals may have less influence, such as teacher-to-teacher relations in professional communities, and collective responsibility; and (3) variables on which the principal has indirect control, such as teachers' sense of personal efficacy, and the quality of instruction.

We assume that the effects of principal leadership on students are almost entirely indirect.⁵⁴ The long line of research on school effectiveness shows that classroom environment and the quality of instruction are the variables linked most strongly to student learning (although some questions remain about the relative effectiveness of specific modes of instruction).⁵⁵ Teacher characteristics (such as type of degree or certification) have limited effects,⁵⁶ operating for the most part indirectly, through their impact on instruction.⁵⁷ In other words: to learn how leadership contributes to student learning, we must ask how leadership affects instruction.⁵⁸

Starting with Instruction

Various models of good instruction have evolved over the last several decades, but differences among them remain only partially resolved. An early review of research showed that certain instructional practices—e.g., using academic objectives to establish learning expectations, using particular strategies for classroom management, and pacing instruction appropriately, given the content to be taught and the characteristics of the learners—were consistently associated with student achievement.⁵⁹ After the late 1980s, theory and research increasingly emphasized inquiry-based instructional models, in which the teacher's most important role was in designing lessons or learning experiences

⁵⁴ Witziers, Bosker, & Kruger (2003).

⁵⁵ Cohen, Raudenbush, & Ball (2003).

⁵⁶ Wayne & Youngs (2003).

⁵⁷ Smith, Desimone, & Ueno (2005).

⁵⁸ Wahlstrom & Louis (2008).

⁵⁹ Brophy (1986).

that involved guiding students toward new understanding through exploration and induction.⁶⁰ While some approaches to constructivism emphasized modest roles for teachers (as “guides on the side”), others gave teachers clear responsibilities consistent with traditional roles, but also for organizing learning environments that develop students’ sense of responsibility for their own learning.⁶¹

Researchers today rarely address “time on task” as a simplistic factor. Still, a growing body of evidence shows that student learning is enhanced when teachers exercise appropriate control over the pacing of classroom work,⁶² at least when the activity in question is based on rich materials and stimuli. Recent reviews have begun to reemphasize the role of the teacher in directing student learning.⁶³

A particular problem is that research based on observations of instruction in widely varying settings (e.g., different disciplines, different grade levels) often yields little in the way of details sufficiently specific to understand the choices particular teachers must make.⁶⁴ Taking adequate account of the complexity of classroom instruction is very difficult. As Cohen, Raudenbush, and Ball (2003) note, this is because teachers and students are independent and idiosyncratic actors. What happens instructionally in a given situation is context-specific, making it difficult to generalize validly about particular reform efforts aimed, for example, at developing shared leadership and professional community. Moreover, research to date has done little to identify direct links between the policies and practices of school-level leaders and the provision of high-quality instruction, whether teacher-directed or teacher-guided.

In a previous paper we used factor analysis to demonstrate that teachers report a distinctive style of teaching—one that incorporates direct influence over the pacing and content of classroom work while also providing opportunities for students to take charge of their own learning and construct their own knowledge. We called this style of teaching “focused instruction.”⁶⁵ In our view, if we overlook certain teacher-educator debates,⁶⁶ our finding that “real teachers” combine elements of a traditional teacher-centered model with elements of constructivist models is consistent with other research on instructional approaches that are linked to student achievement.⁶⁷

Instructional Leadership

As Hallinger (2005) notes in a recent review of scholarship, *instructional leadership* is an idea that refuses to go away, although it has been poorly defined since it was first introduced in the 1970s. In the school building, the principal is expected to understand the tenets of quality instruction, and to have sufficient knowledge of the

⁶⁰ Wiske (1998).

⁶¹ Fenstermacher & Richardson (2005).

⁶² Allington (2001); Knapp (1995); and Taylor, Pearson, Clark, & Walpole (2000).

⁶³ Kirschner, Sweller, & Clark (2006).

⁶⁴ see, for example, Newmann & Associates (1996).

⁶⁵ Wahlstrom & Louis (2008).

⁶⁶ Wilson & Peterson (2006).

⁶⁷ Newmann & Associates (1996).

curriculum to ensure that appropriate content is being delivered to all students.⁶⁸ This presumes that the principal is capable of providing constructive feedback to improve teaching, or that she or he can design a system in which others provide this support. Research shows that consistent, well-informed support from principals makes a difference,⁶⁹ and principals accordingly face increasing pressure to deliver (or at least promote) better support for instruction.

In their efforts to act as instructional leaders, some principals benefit from support provided, for example, through professional development programs; those who do are more likely than others to enact this leadership role consistently.⁷⁰ While some scholars emphasize the importance of principals' deep understanding of curricular content and instructional materials,⁷¹ others pay more attention to principals' support for improved instruction.⁷² Typically, those who emphasize the importance of deep content knowledge study elementary schools.⁷³ Even in elementary schools, however, the principal's ability to provide support through effective interaction may be more important than his or her specific content knowledge.⁷⁴

Middle and high school principals cannot be expected to provide substantive support for instruction, given the multiple disciplines that are taught in their schools. Thus, many studies of instructional leadership in secondary schools emphasize the development of improved learning environments for teachers, focusing on the ability of principals to stimulate teachers' innovative behavior.⁷⁵ Because our study includes secondary schools, we chose to emphasize supportive behaviors as well as direct coaching or modeling of instruction.

Shared Leadership

For more than three decades, reform proposals have recommended the inclusion of teachers in shared leadership roles. In the late 1980s and early 1990s, efforts to promote school-based management often included formal representation of teachers in decision making—although many investigations of these efforts report weak implementation.⁷⁶ Recent policy discussions (within, e.g., the Education Commission of the States, the Council of Chief State School Officers, and teacher professional associations) suggest broad support now for expanding teachers' participation in leadership and decision-making tasks. These discussions are compatible with findings from some research which suggests that increasing teacher influence may improve schools significantly.⁷⁷ Other research, however, suggests that teachers' involvement in

⁶⁸ Marzano et al. (2005).

⁶⁹ Hallinger (2005); Mosenthal, Lipson, Torncello, Russ, & Mekkelsen (2004).

⁷⁰ Camburn, Rowan, & Taylor (2003).

⁷¹ Stein & Nelson (2003).

⁷² Leithwood (2001); O'Donnell & White (2005).

⁷³ Burch & Spillane (2003).

⁷⁴ Spillane, Hallett, & Diamond (2003).

⁷⁵ Halverson, Grigg, Prichett, & Thomas (2007); Silins & Mulford (2004).

⁷⁶ Anderson (1998); Malen (1994).

⁷⁷ Leithwood et al. (2007); Leithwood et al. (2008); Mayrowetz & Smylie (2004); Spillane, Halvorson, & Diamond (2004).

formal decision-making or leadership roles will have limited impact on student achievement.⁷⁸

Still, what constitutes and promotes the distribution or sharing of leadership in a school is somewhat unclear. Sharing leadership may have its greatest impact by reducing teacher isolation and increasing commitment to the common good.⁷⁹ Experiencing informal influence and feedback through professional discussions encourages a focus on shared practices and goals,⁸⁰ and it may foster organizational innovation.⁸¹ In this paper we define *shared leadership* broadly to denote teachers' influence over, and their participation in, school-wide decisions with principals. This view of shared leadership reflects an emerging consensus among scholars about the people who are concerned with formal and informal enactments of leadership roles; it also distinguishes our approach from the approach of scholars who blend the concept of *shared leadership* with *instructional leadership*.⁸²

Trust

The concept of *organizational trust* has been a staple of organizational research for some time. It matters a great deal whether participants in an organization trust the decision-making capacity of the organization's leaders. Driscoll (1978) found that such trust predicts overall satisfaction with the organization better than employee participation in decision making. A more recent study examined changes in levels of trust within work teams; it found that the perceived ability of colleagues was a strong predictor of trust, and that trust was a significant predictor for risk-taking behaviors.⁸³

In the past two decades, studies of trust as a factor in school improvement have begun to illuminate certain actions leaders take to alter the culture in a school positively.⁸⁴ In a sample of secondary schools, Tarter et al. (1989) found that supportive principal behavior and faculty trust were significantly correlated. In schools with higher levels of engaged teachers, moreover, teachers expressed higher levels of trust in their colleagues. Tarter's study implies that principals can build trust indirectly through supportive behavior, but they cannot make teachers trust one another through direct action. Similarly, Bryk and Schneider's (2003) study of Chicago elementary schools found that principal respect and personal regard for teachers, competence in core role responsibilities, and personal integrity were associated with relational trust among all adult members of the school. Louis (2007) identified similar principal behaviors that affect trust, and also linked trust to shared leadership. High-trust schools exhibited more collective decision making, with a greater likelihood that reform initiatives were widespread, and with demonstrated improvements in student learning. Tschannen-Moran also outlined key leadership behaviors and specific actions that engender trust. For

⁷⁸ Marks & Louis (1997); Smylie, Conley, & Marks (2002).

⁷⁹ Pounder (1999).

⁸⁰ Chrispeels, Castillo, & Brown (2000); Marks & Printy (2003).

⁸¹ Harris (2009).

⁸² Marks & Printy (2003).

⁸³ Serva, Fuller, & Meyer (2005).

⁸⁴ See, e.g., Bryk & Schneider (2003); Hoy & Sweetland (2001); Louis (2007b); Tarter, Bliss, & Hoy (1989); Tschannen-Moran (2004).

example, “Competence” is enacted by “engaging in problem solving, setting standards, buffering teachers, pressing for results” (2004, p.34). More recently, trust has been shown to predict how educators interpret their superiors’ ability to carry out more technical and transformational leadership functions.⁸⁵

Embedded in the notion of trust is the key distinction between the “trustee” and the “trustor,”—that is, those having more or less power (or dependence) in a particular situation.⁸⁶ Teachers’ views of trustworthy principals tend to be based on the leadership characteristics outlined above. However, we have much less information about why principals do or do not trust their teachers.

Teacher Leadership and Professional Community

While we have focused thus far on shared leadership and principal-teacher trust, teacher-teacher relationships are even more important as a foundation for the way in which teachers work to improve instruction,⁸⁷ and how they are affected by the leadership behavior of principals.⁸⁸ Here we emphasize the importance of *professional community*, largely because accumulating evidence shows that it is related to improved instruction, student achievement,⁸⁹ and one of our leadership variables (shared leadership).⁹⁰

York-Barr and Duke (2004) view professional community as a vehicle for the exercise of teacher leadership, a perspective that we adopt in this paper. Supportive interaction among teachers in school-wide professional communities enable them to assume various roles with one another as mentor, mentee, coach, specialist, advisor, facilitator, and so on. However, professional community amounts to more than just support; it also includes shared values, a common focus on student learning, collaboration in the development of curriculum and instruction, and the purposeful sharing of practices—all of which may be thought of as distributed leadership.⁹¹

Findings from several studies cited above suggest that when the professional community focuses on the quality of student learning, teachers adopt instructional practices that enhance students’ learning. While many factors affect whether or not professional community exists in a school, one highly significant factor is strong leadership by principals.⁹² Professional community is closely associated with organizational learning, and the term “professional learning communities” has become a common shorthand expression among practitioners. Thus, the presence of a professional community appears to foster collective learning of new practices—when there is principal leadership.⁹³

⁸⁵ Daly & Chrispeels (2008).

⁸⁶ Driscoll (1978).

⁸⁷ Louis (2006).

⁸⁸ Wiley (2001).

⁸⁹ King & Newmann (2001); Louis & Marks (1998); Smylie & Wenzel (2003).

⁹⁰ Scribner, Sawyer, Watson, & Myers (2007); York-Barr & Duke (2004).

⁹¹ Hord & Sommers (forthcoming); McLaughlin & Talbert (2002).

⁹² See, e.g., Bryk, Camburn & Louis (1999), and Louis & Marks (1998).

⁹³ Marks, Louis, & Printy (2002).

School Level

Many characteristics of schools may moderate leadership effects. In this paper, we focus on potential differences between elementary and secondary schools. Investigations of principal leadership effects on teachers and students are often carried out using only one type of school.⁹⁴ Those that use samples from all levels (e.g., Marks & Printy, 2003) are based on a small number of cases, while those based on a larger number of schools often use a convenience sample drawn from a single district.⁹⁵ Nevertheless, there is reason to suppose that leadership practices and their effects may be different in elementary and secondary schools, given differences of school size and organization. The principal in a very large school simply does not have time to work directly with all teachers. As Harris (2002) points out, secondary school principals seem to influence teachers and teaching practice because of the organizational climate they create, not through specific interactions or interventions.

New Evidence

An analytic framework derived from prior scholarship and our previous investigation of the relationship between principal leadership and instruction guided our examination of shared leadership.⁹⁶ We assumed that both principal-teacher relationships (indicated by trust, instructional leadership, and perceptions of shared leadership) and teacher-teacher relationships (indicated by professional community) will affect classroom practice. Classroom practice—particularly the type of instruction that combines elements of teacher-directed and constructivist approaches—should, in turn, affect student learning. We emphasize the importance of classroom practice as the direct cause of increased student learning because there is little evidence, from either survey or qualitative research, that principal leadership can have a direct effect apart from changes in teacher practice.

Our specific intention, once again, is to explore two questions:

- Do three specific attributes of principals' leadership behavior—the sharing of leadership with teachers, the development of trust relationships among professionals, and the provision of support for instructional improvement—affect teachers' work with each other and their classroom practices?
- Do these leadership behaviors and attributes contribute to student achievement?

Method

This component of our study utilized data from the first and second round of teacher surveys. Each of the two surveys contained some items from established instruments, as well as many new items. This section of our study is based on surveys of

⁹⁴ Bryk & Schneider (2002); Cascadden (1998); Friedkin & Slater (1994); Goddard, Sweetland, & Hoy (2000a); Harris (2002).

⁹⁵ Leech & Fulton (2008); Leithwood & Jantzi (1999a).

⁹⁶ Wahlstrom & Louis (2008).

4,491 teachers in 43 districts in 157 schools, with a response rate of 67% (for Round One, in 2005), and 3,900 teachers in 40 districts in 134 schools, with a response rate of 55% (for Round Two, in 2008).⁹⁷ It combines some measures from the first teacher survey (principal leadership variables) with some from the second teacher survey (measures of trust, and an improved measure of focused instruction).

We measured each of the variables in the surveys using multiple items. The items and their alphas are shown in Table 1.2.1. We wish to draw particular attention to the Focused Instruction variable, which combines elements of constructivist (student controlled) and direct (teacher controlled) behaviors. The other measures are based largely on items that we adapted for this study from previous surveys.

⁹⁷ The method of survey administration, which involved filling out surveys during a faculty meeting, makes a completely accurate response rate difficult to determine, largely because of incomplete staff lists at the building level. In addition, a few schools that participated in 2004 dropped out for 2008, and were replaced. Because we use data from both surveys, our N of schools is thus reduced to 106 when missing achievement data are factored in.

**TABLE 1.2.1 Scale Reliability for Variables
(N = 106 Schools)**

Variable	Alpha	Sample Items
Focused Instruction	.77	3-16 My instructional strategies enable students to construct their own knowledge. 3-18 Disruptions of instructional time are minimized. 3-19 Most students in my class are capable of taking charge of their own learning in age-appropriate ways. 3-20 I focus on developing a deep knowledge of the core subjects that I teach.
Professional Community	.85	2-4 Most teachers in our school share a similar set of values, beliefs, and attitudes related to teaching and learning. 2-8 In our school we have well defined learning expectations for all students. 3-17 How many teachers in this school take responsibility for improving the school outside their own class? 3-20 How often in this school year have you invited someone in to help teach your class(es)? 3-22 How often in this school year have you received meaningful feedback on your performance from colleagues? 3-23 How often in this school year have you visited other teachers' classrooms to observe instruction? 3-28 How often in this school year have you had conversations with colleagues about what helps students learn best?
Shared Leadership	.78	2-3 The department chairs/grade-level team leaders influence how money is spent in this school. 2-5 Teachers have an effective role in school-wide decision making. 2-19 Teachers have significant input into plans for professional development and growth. 4-9 School's principal(s) ensures wide participation in decisions about school improvement.
Instructional Leadership	.82	4-10 My school administrator clearly defines standards for instructional practices. 4-13 How often in this school year has your school administrator discussed instructional issues with you? 4-16 How often in this school year has your school administrator observed your classroom instruction? 4-18 How often in this school year has your school administrator attended teacher planning meetings? 4-19 How often in this school year has your school administrator made suggestions to improve classroom behavior or classroom management? 4-21 How often in this school year has your school administrator given you specific ideas for how to improve your instruction?
Trust	.90	4-24 When teachers are struggling, our principal provides support for them. 4-25 Our principal ensures that all students get high quality teachers. 4-26 If my principal promised to do something, s/he would follow through. 4-27 In general, I believe my principal's motives and intentions are good. 4-28 I feel free to discuss work problems with my principal without fear of having it used against me later.

Using the conceptual framework outlined above, we initially performed correlation analyses and stepwise linear regressions. We then used causal modeling (using the SPSS AMOS program) to examine the direct and indirect effects of leadership on achievement. We chose mathematics achievement as our dependent measure largely because within-school variability in instructional quality may be lower for mathematics than for other subjects.⁹⁸ However, we also conducted comparable analyses using state literacy test scores, with results similar to those reported below.

The Indirect Nature of Leadership Effects

We initially assumed that the effects of leadership on student achievement are largely indirect, operating through other variables. We examined this assumption by examining correlations, which are presented in Table 1.2.2. The results indicate that achievement scores in mathematics are significantly associated with focused instruction, professional community, and teachers' trust in the principal; they are not significantly associated with principal behaviors (instructional leadership and shared leadership), which provides support for our assumption. Trust in the principal and professional community, on the other hand, are both associated with achievement in mathematics, which suggests that relationships among adults may be important factors determining how well students perform. In our sample, students in elementary schools perform better than students in secondary schools on state benchmark tests.

Table 1.2.2
Relationship between Survey Variables and Student Achievement: Correlation Coefficients
(N = 106 Schools)

	2004-05 Mean Math Proficiency for That Building	Building Mean Focused Instruction	Building Mean Instructional Leadership T2	Building Mean Trust T2	Building Mean Shared Leadership	Building Mean Professional Community
2004-05 Mean Math Proficiency for That Building	1					
Building Mean Focused Instruction summed	.269**	1				
Building Mean Instructional Leadership T2	-.071	.310**	1			
Building Mean Trust T2	.249*	.436**	.490**	1		
Building Mean Shared Leadership	.170	.330**	.106	.256**	1	
Building Mean Professional Community	.198*	.510**	.420**	.451**	.597**	1
Bldg Level 0=Elem 1 = Mid/Jr/Sr	-.216*	-.315**	-.166	-.252**	-.209*	-.540**
	.013	.001	.086	.009	.014	.000

⁹⁸ Newmann & Associates (1996).

If we look at the remaining cells in the correlation matrix, it is clear that the measures of predictors are highly correlated. Our data are consistent with results from other studies in suggesting, for example, that on many measures the quality of teachers' work life (trust, professional community, experience of strong leadership) is lower in secondary schools.⁹⁹ In addition, teachers whose experience with other adults is positive on one of our dimensions tend to have similarly positive responses on the others. In sum, while the results are confirmatory, they suggest a need for further analysis to investigate how the relationships among the variables may combine to affect teachers' classroom practice and student learning. We therefore conducted several stepwise regression analyses to address the two questions serving as the focus for this sub-study.

Effects on Teachers' Work of Selected Attributes of Leadership Behavior

To address this question, we performed further analyses on results from our earlier investigations,¹⁰⁰ looking at the relationship between principal behaviors and characteristics and teachers' instructional practice. The results of this regression are presented in Table 1.2.3.

Table 1.2.3
Regression of Instructional Practice on Teacher and Principal Leadership
(N = 106 Schools)

		Beta	t	Sig.	Model F	R(R2)
1	(Constant)		9.471	.000		
	Prof. Community	.510	6.102	.000	.37.24***	.51(.26)
2	(Constant)		9.138	.000		
	Prof. Community	.337	3.173	.002		
	Instructional Leadership	.041	.422	.674		
	Trust in Principal	.239	2.432	.017		
	Shared Leadership	.096	1.014	.313		
					12.15*	.56(.32)
3	(Constant)		8.141	.000		
	Prof. Community	.280	2.285	.024		
	Instructional Leadership	.051	.524	.601		
	Trust in Principal	.233	2.358	.020		
	Shared Leadership	.113	1.167	.246		
	Building Level	-.092	-.946	.346		
					9.9	.57(.33)

Sig \geq .01 *

Sig \geq .001**

⁹⁹ Louis & Marks (1998).

¹⁰⁰ Wahlstrom & Louis (2008); Louis & Marks (1998).

Using a 3 model approach, we first examined the relationship between professional community and focused instruction, adding principal behaviors and characteristics in model 2, and finally adding school level, which has been shown in previous studies to affect both professional community and instruction. The results suggest that professional community and trust in the principal are the only significant predictors. In addition, until building level is added in model 3, professional community seems to bear more weight than trust (the change in the relationship in model 3 is presumably accounted for by the negative relationship between being a secondary school and trusting the principal). It is apparently the case that collegial relationships among adults in the school, whether principal-teacher or teacher-teacher, lead to stronger focused instruction.

The Influence of Principal Leadership on Student Achievement

To address the second question, about the effects of principal leadership on student achievement, we again used a 3 model approach.

Table 1.2.4
Regression of Student Achievement in Math
on Teacher and Principal Leadership Variables
(N = 106 Schools)

Model		Standardized Coefficients		Significance		Model F/Sig. Change	R(R2)
		Beta	t	Sig.	Sig.		
1	(Constant)		-1.372	.173		7.76**	.27(.07)
	Focused Instruction	.267	2.785	.006			
2	(Constant)		-1.624	.107		4.46*	.29 (.08)
	Focused Instruction	.208	1.887	.062			
	Prof. Community	.119	1.076	.284			
3	(Constant)		-.695	.489		3.74**	.44(.19)
	Focused Instruction	.179	1.597	.114			
	Prof. Community	.108	.761	.449			
	Bldg. Level	-.154	-1.398	.165			
	Instructional Leadership	-.315	-2.816	.006			
	Trust in Principal	.243	2.102	.038			
	Shared Leadership	-.059	-.534	.594			

Sig \geq .01 *

Sig \geq .001**

We looked first at the instruction-learning relationship in model 1, then added professional community (teacher-teacher relationships) as a second step, and finally added both building level and leadership characteristics in a third stage (Table 1.2.4). The results indicate that instructional practices have a significant effect on achievement (Model 1), but that this effect is diminished when we introduce teachers' professional community (Model 2), and it is further diminished when we look at school level and school demographic characteristics (Model 3).

The second regression model shows that adding professional community to the simple instruction-achievement model barely raises the percentage of variance explained. However, when the leadership variables are added in model 3, there is a large increase in the R and R², which suggests that principal leadership, even if it operates indirectly, is important. Both trust in leadership and instructional leadership exhibit significant regression coefficients, while building level and shared leadership are insignificant. Overall, adding leadership variables and the building level control variable more than double the percentage of explained variance in mathematics achievement. In other words, the regression evidence is strong for a relatively important leadership effect.

While the regressions support our assumption that leadership affects student learning, we assumed that it was unwise to over-interpret the regression coefficients, given the relatively high correlations among the predictor variables. In addition, the results of the two regressions raise as many questions as they answer. Why, for example, does instructional leadership exercised by principals have an insignificant effect in the regressions that focused on instruction as the dependent variable, while it shows a strong effect when the dependent variable is student achievement? We therefore moved to test our assumptions through causal modeling, guided by a set of possible interpretations of the regressions, as well as the literature reviewed above.

Figure 4 presents the model that illustrates the least complicated approach to answering the two questions motivating our inquiry.

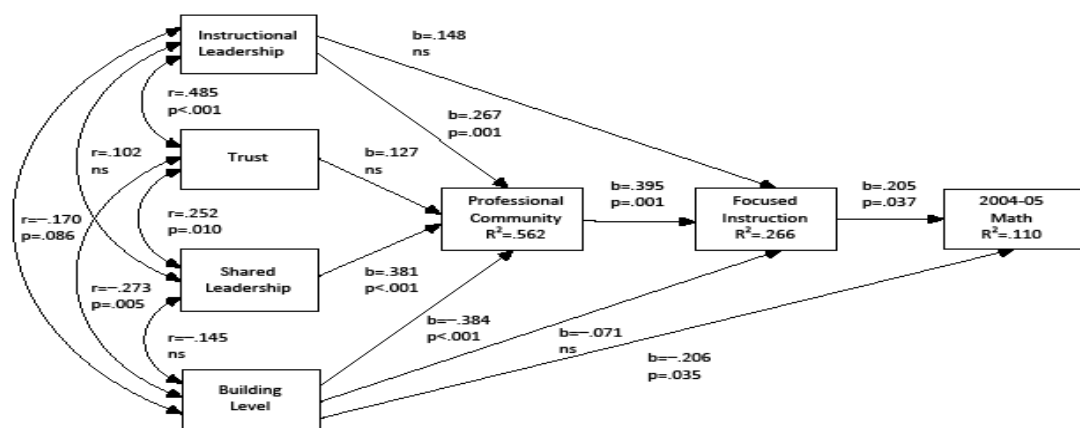


Figure 4: Effects of Principals' Leadership Behavior on Teachers and Student Achievement

The model makes the simplifying assumption that we do not know enough to examine a causal relationship among the three measures of leadership behavior/characteristics. They are, thus, positioned, along with the dichotomous variable reflecting the building level (elementary/secondary) at the left side of the model. In light of prior research, we then assume that leadership behaviors and characteristics are the factors most likely to create the conditions for professional community to develop among teachers. We discuss additional assumptions in our interpretation of results, which follows.

We used the maximum likelihood method for the path analysis. We assessed goodness of fit between the model and the data via three fit indices: the goodness-of-fit index (GFI), normed fit index (NFI), and the comparative fit index (CFI). GFI, NFI, and CFI values greater than .9 indicate that the model is a good fit with the data.¹⁰¹ The CFI is particularly critical, since it is a useful statistic with relatively small samples.¹⁰² The values of the GFI (.952), CFI (.924), and the NFI (.900) all meet the suggested criterion. Taken together, these results indicate that the fit between the model and the data is adequate.¹⁰³

We interpret the findings of the path analysis as follows:

- Although *principal instructional leadership* has significant effects on teachers' working relationships (professional community), its direct effects on instruction are limited.
- *Shared leadership* was not assumed to have a direct effect on instruction, but rather an indirect effect through professional community as a locus for teacher leadership focused on instructional improvement. The model confirms this indirect relationship.
- *Trust*, which represents the emotional bond between the principal and teachers, was assumed to have a strong impact on teacher-teacher relationships. The model suggests, however, that its impact on professional community is limited, compared to the effect of leadership behaviors.
- *Building level*, as expected, has a strong effect on professional community (with elementary schools being advantaged), and an equally strong direct effect on achievement (again, an elementary school advantage), but no significant effect on focused instruction. We did not expect the latter result; it suggests a need for further investigation to clarify the dynamics of professional community, instruction, and achievement in high schools. We explore this topic further in Section 1.5.
- *Professional community* has significant indirect effects on achievement, owing to its strong relationship to focused instruction.

¹⁰¹ Bentler & Bonett (1980).

¹⁰² Bentler (1990).

¹⁰³ The RMSEA is .45, which is considerably higher than the suggested value of .05.

Discussion

Efforts to determine how principal leadership affects student achievement have a rich, albeit recent, history. Our analysis provides the most extensive empirical test to date of whether instructional leadership, shared leadership, and trust in the principal, when considered together, have the potential to increase student learning. The answer is an unqualified *yes*, but the findings are complex and suggest a need for further analysis.

First, the emotional side of principal behavior—which we have assessed by reference to teachers’ trust in the principals as ethical, caring, and competent—has on its own been shown to have a strong relationship to student outcomes. In our study, however, its relative significance diminishes when we take into consideration principal behaviors, as measured by our constructs of instructional leadership and shared leadership. Still, we are not prepared, based on a single study and a simple path model, to discount the importance of the emotional side of leadership, which has been shown in studies in industry as well as education to have powerful effects on the way in which people engage with their work.

Because trust is highly correlated with other key measures used in this study, we are inclined to say that our assumption—that trust is not reciprocal, for example, with professional community—is unwarranted. Further investigation is warranted to determine how the emotional side of leadership interacts with other leadership behaviors and with teachers’ relationships with one another. Follow-up research might build on existing work, but it also should attend more directly to instrumental leadership actions.¹⁰⁴

Shared leadership and instructional leadership are important variables, but they are indirectly related to student achievement. Both seem to gain their influence because of their strong relationships to other variables: to the way in which teachers organize themselves into professional communities, to reflective discussions about instruction, and to a sense of collective responsibility for student learning. This finding is hardly surprising when we consider the arguments for shared leadership, which generally emphasize expanding the sphere of responsibility and creativity to meet pressing school needs. The largely indirect effects of instructional leadership are, however, equally significant. While principals may engage in classroom visits and model good teaching by working with individual teachers, individual interventions (which would have emerged as a direct effect on good classroom practice) seem less important than detailed investigations of elementary schools suggest.¹⁰⁵

The finding is important because shared leadership and instructional leadership are often regarded as alternative strategies for reaching the desired end of student learning. Those advocating instructional leadership emphasize the need to maintain a singular focus on classroom practice as the key to improving student achievement, and they point to the important role of the principal as a model. Others who look at shared leadership point to the importance of creating a learning organization in which all eyes

¹⁰⁴ Hargreaves (2001); Leithwood & Beatty (2007); Little (1996); Zembylas (2003).

¹⁰⁵ Spillane (2005); Stein & Nelson (2003).

are focused on leadership for learning. Our data suggest that these are complementary approaches, and that both may be necessary. Thus, using a larger and more diverse sample, we affirm Marks and Printy's (2003) work, which emphasizes the importance of combining leadership foci (in their case, transformational and instructional).

The findings regarding differences between elementary and secondary schools are particularly important as we begin to develop theories of effective school leadership. Our results, as we have noted, suggest the need for further inquiry; still, it is clear that the job of fostering student achievement is far easier in elementary schools than in secondary schools.

Implications for Policy and Practice

Four implications for policy and practice emerged from this section of our study.

1. Teachers and educators holding formal administrative responsibilities need to acknowledge and act on the importance of collective, shared efforts to improve instruction.

Professional community is regarded by some teachers as a code term for an administratively initiated program designed to encourage teachers to analyze student achievement data and turn it into improved test scores. Our analysis suggests that the reality is more complex. Teachers do need to work together to improve instruction and student learning, but administrators also need to be part of the process. The process may be as simple as having principals participate in professional development activities for teachers, or as complex as reorganizing the formal authority structure of the school. In any case, it requires a rethinking of the "bright line" that often separates administration and teaching.

2. To realize their potential as instructional leaders, principals working in middle schools and high schools need particular modes of support. They face a distinct challenge, shaped by the large, complex settings in which they work, and the level of support extended to them should be commensurate with their distinct needs.

Simply increasing the pressure on principals is unlikely to bring about real improvements in principal-teacher collaboration and achievement levels in secondary schools. Many school districts, however, lack the capacity to do more than that. We suggest accordingly that entities at the state or the regional/national level will need to be involved. Because we know from international studies (PISA and TIMSS, e.g.) that secondary schools are the weakest link in our educational system, and that they show limited capacity for improvement under current accountability policies, we suggest that designing and providing new programs to support secondary school principals must become a policy priority.

3. Principal preparation and professional development programs should continue to emphasize both the “softer” (emotional) and the “harder” (behavioral) aspects of leadership. While our results suggest that principals’ behavior is more important than the levels of trust principals evoke, behavior and levels of trust are empirically part of a bundle that is difficult to disentangle. Trust without instructional and shared leadership to support it may be of little consequence for students, but our data suggest that teachers’ relationships with one another, and their trust in the principal, cannot be easily disaggregated.
4. While public policy and community opinion increasingly put pressure on principals to improve student performance, it is equally important to expect that principals also take actions that support instructional and shared leadership which lead to improved student learning. Increasing teachers’ involvement in the difficult task of making good decisions and introducing improved practices must be at the heart of school leadership. There is no simple short-cut.

1.3

Patterns of Distributed Leadership by Principals: Sources, Beliefs, Interactions, and Influences

Key Findings

- While there are many sources of leadership in schools, principals remain the central source.
- How leadership is distributed in schools depends on what is to be accomplished, on the availability of professional expertise, and on principals' preferences regarding the use of professional expertise.
- No single pattern of leadership distribution is consistently linked to student learning.
- Principals are involved in many leadership activities; others who act as leaders in the school ordinarily do so in respect to one or a few initiatives.
- Leadership is more distributed for practices aimed at “developing people” and “managing instruction” than it is for “setting directions” and “structuring the workplace.”
- More complex and coordinated patterns of distributed leadership appear when school improvement initiatives focus directly on student learning goals, as distinct from the implementation of specific programs.

Introduction

Leadership can be conceptualized and studied as an individual or an organizational phenomenon. The former conception orients us toward an analysis of the beliefs, actions, personal traits, and influence of individuals recognized by others as leaders. An organizational perspective suggests that leadership is unlikely to be constituted solely of the actions and influence of an individual. According to this view, we need to examine the range of leadership sources, beliefs, actions, interactions, and influences recognized by participants in those settings.

Section 1.1 of our report describes influence arising from various sources of leadership as that influence comes to bear on school decisions, teachers' work, and student learning. Section 1.2 describes leadership shared among principals and teachers as that leadership relates to instruction, trust, professional community, and student achievement. These two sections are based on evidence from teacher surveys and student

achievement data. In contrast, Section 1.3 is based on evidence from principal and teacher interviews. We analyze this evidence in an effort to answer four questions:

- Who participates in leadership distribution?
- What patterns does leadership distribution take?
- How is responsibility for “core” leadership functions (described in other sections) distributed?
- How is leadership distribution related to school improvement goals?

Prior Evidence

Scholars recently have focused considerable attention on the properties and complexities of leadership distribution in schools and districts—sources, focal points, functions, interactions, contexts, and outcomes.¹⁰⁶ We know that leadership may be distributed in various patterns, though consensus on a typology and terms remains elusive. Furthermore, we know little to nothing about how different forms of leadership distribution enhance or do not enhance the accomplishment of organizational goals.

Gronn (2002) refers to holistic and additive models of leadership distribution. The additive model refers to a dispersed pattern of leadership in which multiple members of an organization provide leadership for varying goals and/or tasks. Different members may provide leadership for different purposes, without coordination or a shared focus. The holistic model suggests greater interdependency and coordination among varied sources, focused on shared goals and tasks.

At a more micro-level, Spillane (2006) identifies three arrangements for distributing leadership responsibilities: division of labor (different leaders for different tasks), co-performance (multiple leaders together for same task), and parallel performance (multiple leaders perform the same tasks but in different contexts). Similarly, Goldstein (2003) and Gronn (2002) distinguish between situations in which leadership for specific tasks is enacted by multiple leaders, together or separately. Spillane expands upon this formulation, defining three types of co-performance: collaborated distribution (multiple leaders jointly enact the same leadership practice in the same context); collective distribution (multiple leaders perform separate but interdependent tasks in different contexts and in support of the same goal); and coordinated distribution (interdependent actions of multiple leaders are performed in a particular sequence).

Recently, Leithwood and his colleagues have conceptualized a typology that offers a more general theoretical framework for exploring the distribution of leadership in

¹⁰⁶ MacBeath (2005) and Spillane (2006)

organizations.¹⁰⁷ The framework, grounded in a research-based definition of *leadership*, identifies four categories of “core” leadership functions: setting directions, developing people, redesigning the organization, and managing the instructional program.¹⁰⁸ This typology emphasizes variability in the alignment of leadership functions and in beliefs associated with different forms of alignment: planful alignment, spontaneous alignment, spontaneous misalignment, and anarchic misalignment.

The analysis in Section 1.3 builds on past theory and research to explore the nature and patterns of leadership distribution in schools, focusing on sources of leadership influence and the relation of leadership influence to student performance. We pay particular attention to the role principals play in the distribution of leadership.

New Evidence

Method

Data for our analyses arise from interviews with school personnel in a sub-sample of schools participating in the site-visit component of the larger study. The teacher survey administered to all participating schools during the first round of data collection included a set of items designed to measure the relative influence of those in multiple roles on school decision making (see Section 1.1). From these items, we derived a measure of *collective leadership* that enabled us to make comparisons across schools by reference to the range of sources of leadership influence and the strength of that influence on teachers.

We selected a purposive sample of site-visit schools for this analysis. First, we classified all site-visit schools as high, medium, or low on the collective leadership and student performance measures. From the resulting matrix, we selected five schools for qualitative analysis of leadership distribution. These schools varied widely on collective leadership scores and student performance. The sample (Table 1.3.1) included elementary and middle schools, schools in high- and low-SES settings, and schools in inner-city, suburban and rural settings across four states (Texas, Missouri, Oregon, and New Jersey).

We collected data for each school, using all school administrator and teacher interviews conducted during the first site visit (8-10 interviews per school). We transcribed all interviews and entered the transcripts into an NVivo project data base that included *leadership* as one of the core codes.

We employed a three-stage process of analysis. In stage one we created descriptions of leadership activities in each school derived from the NVivo data queries. We developed a findings template that drew upon Spillane’s conceptualization of leadership practice.¹⁰⁹ The template enabled us to construct descriptions of (1) sources of

¹⁰⁷ Leithwood et al. (2007)

¹⁰⁸ Justification for these categories is provided in Leithwood & Riehl (2005); Leithwood, Louis, et al. (2004); and Leithwood & Jantzi (2006).

¹⁰⁹ Spillane (2006).

leadership linked to (2) specific actions and (3) goals in (4) specific contexts, along with (5) the co-participants in those situations, (6) the reported effects of those actions, and (7) the reported factors influencing those leadership variables. This analysis generated 15-25 leadership scenario templates per school.

In stage two we recoded each scenario according to the core leadership practices exemplified (here we used operational definitions derived from Leithwood & Jantzi, 2006). Then we wrote an analysis of the leadership distribution patterns we discerned in the scenarios, applying concepts from research on leadership distribution as appropriate.

In stage three we wrote a case report for each school, integrating findings from the scenario analyses and structured according to the research questions. The findings presented and discussed here highlight key themes and findings that emerged from the cross-case analysis.

TABLE 1.3.1
Sample School Characteristics

School	Collective Leadership	Student Achievement ¹¹⁰	Setting ¹¹¹
London Elementary	High	High	Size: 537 Pupils Diversity: High Poverty: High
Overton Elementary	High	Low	Size: 221 Pupils Diversity: Med Poverty: Med
Gregory Elementary	High	High	Size: 581 Pupils Diversity: Med Poverty: High
Playa Junior High	Low	Middle	Size: 345 Pupils Diversity: High Poverty: High
Forest Elementary	Low	Low	Size: 443 Pupils Diversity: High Poverty: Med

Who Participates in Leadership Distribution?

Consistent with the findings of others,¹¹² we found that school personnel did not attribute leadership actions and influence only to one source, and not always to the principal. The individuals or groups identified as providing leadership included a mix of principals, assistant principals, teachers in formal leadership roles (e.g., grade or subject

¹¹⁰ Student achievement rankings calculated by comparing the percentage of students scoring at or above minimum state proficiency standards on state-mandated assessments in reading and mathematics (2002-2005) relative to other schools in the states where these schools are located.

¹¹¹ Diversity (Low=66%+ White; Medium=18%-65% White; High=0-17% White); Poverty (Low=0-17% F/R lunch; Medium=18%-65% F/R lunch; High=66%+ F/R lunch).

¹¹² Evidence of this is provided by Camburn, Rowan, & Taylor (2003); Hall (1992); Heller & Firestone (1995); Leithwood et al. (2004a); and Spillane (2006).

team leaders) and teachers with specialist positions (e.g., literacy specialists, technology specialists, counselors). Teachers also identified other teachers informally recognized by peers as influential; school leadership or management committees; school program teams or committees (e.g., Special Education, Gifted and Talented, Limited English Proficiency); parent involvement personnel; district administrators and professional staff; and external consultants linked to particular areas of curriculum, program, and teacher development priorities at the school level.

What Patterns Does Leadership Distribution Take?

Mere identification of the various individuals and groups contributing to school leadership provides scant insight into the actual distribution of leadership. Overall, principals were more likely than any other source to be implicated in multiple leadership responsibilities. Three overall patterns of distribution appeared across the five schools:

- *Pattern One* (London, Overton, and Gregory Elementary Schools). The leadership influence of the principal was evident across various focal points of school-improvement activity. Principals were seen to exercise influence in planful collaboration with influential school-based teacher leaders (individuals and groups) and with outside sources (district specialists, external consultants) associated with particular goal-oriented initiatives. In these schools there was a strong emphasis on professional collaboration among teachers, including teachers in instructional leadership roles that crossed curriculum and grade boundaries. These schools had high collective leadership ratings on the survey measure.
- *Pattern Two* (Playa Jr. High School). The leadership influence of the principal extended across various focal points of school-improvement activity, but the evidence was less robust for influential sources of teacher leadership and for principal collaboration with teachers and/or external change agents. Teacher leadership was limited to traditional grade-level or program-specific structures, and there was less emphasis, school-wide, on teacher collaboration.
- *Pattern Three* (Forest Elementary School). The principal interacted administratively with various focal points of school-improvement activity, but she had little influence on implementation. Key teachers or external agents were identified with support for different improvement initiatives, yet teachers attributed little influence to their enactment of those roles. Teachers did not report an emphasis on, or culture of, teacher collaboration within or across school organizational structures.

These findings from the five schools are consistent with the higher collective leadership scores in London, Overton and Gregory Schools, and with the lower scores in Playa and Forest Schools. Sometimes leadership is conceptualized as a school-level phenomenon; sometimes it is conceptualized for a specific, goal-oriented activity. Gronn's (2002) distinction between additive and holistic leadership is useful for describing leadership distribution here. Among our cases, Forest Elementary provides the clearest example of a school in which the overall pattern of leadership distribution

corresponded to an additive pattern, at least in a formal, bureaucratic sense (teachers attributed little actual influence to those in formal positions of leadership responsibility).

The distribution of leadership sources in London, Overton, and Gregory Schools conformed more closely to the holistic pattern of leadership distribution. This clearly reflects the extension of the principal's leadership influence across various focal points of school improvement. Playa School did not clearly fit either an additive or a holistic pattern of distribution in leadership sources, in part because there was no strong teacher-leader presence.

Teachers' Collective Influence as a Pattern of Distributed Leadership

Teachers in several schools talked about the *collective* influence of teachers, not merely the influence of colleagues identified as teacher leaders. Collective influence, these teachers reported, was instrumental in school decisions and in broader decisions about school improvement. They framed it as a function of whether the principal and district authorities invited, valued, and acted upon input from teachers. This qualitative finding reinforces the teacher survey-based findings on collective and shared leadership presented in Sections 1.1 and 1.2.

In London School, for example, teachers reported that a previous principal rarely solicited teacher input; when she did, teachers said, she rarely acted in ways that acknowledged the value of that input. They felt unsupported, and increasingly they kept their opinions and ideas themselves, thereby decreasing the potential for broader teacher influence on decisions in the school. That changed when a new principal came in—one who was perceived as genuinely seeking and respecting teacher input and influence on school decisions. Teachers and principals in Overton and Gregory Schools also affirmed the presence and influence of a strong collective voice from teachers, facilitated by the principal's orientation to teacher input and to organizational structures enabling that input. These findings stand out in contrast to discussions, widespread in the profession, that focus narrowly on the leadership contributions of individually influential teachers.

Formal Role Designations and Patterns of Distributed Leadership

It is tempting to associate the bureaucratic distribution of roles, responsibilities, and authority with the distribution of leadership sources and influence. Beyond the pervasive role of the principal, however, our findings paint a more complex picture.

First, the bureaucratic allocation of responsibility to perform certain functions and tasks does not necessarily mean that the persons or groups so designated will be perceived as influencing what others think and do. Spillane (2006) argues that leadership sources and acts can be recognized as such even if they do not yield their intended effects. But that argument is difficult to sustain against evidence (from Forest School, for example) about people in formal leadership positions whose actions are not seen by school personnel to make much difference.

Second, bureaucratic structures do not determine how patterns of leadership distribution will be enacted through any given bureaucratic structure. A given

bureaucratic structure may be compatible with more than one pattern of leadership enactment. The schools examined here all had multi-stakeholder school leadership committees and special program committees (e.g., special education, bilingual education); they all had a similar array of formal teacher-leader positions, including subject and grade team leaders. Some had teachers assigned to instructional leadership roles associated with priorities for improvement in program and instruction (e.g., in literacy and mathematics). However, actual patterns of leadership influence varied from school to school. Even in single schools, we found examples of variation over time in how leadership was enacted and distributed through the same bureaucratic structures. Principal succession was a factor in each of these situations.

In London School the current principal and her predecessor both worked with a School-Based Management Team, grade-level teams, cross-grade subject teams, special program committees (gifted education, bilingual education, etc.), and specialist roles (counselor, literacy teacher, parent involvement coordinator, etc.). Under the previous principal, the leadership distribution pattern had been highly additive, and the principal was uninvolved with school-improvement initiatives. These initiatives were mandated by the district; they proceeded in an uncoordinated manner, guided and managed by grade team leaders, specialists, and external consultants. The new principal took on a proactive leadership role, exercising influence within existing governance structures in a way that spanned multiple focal points of school-improvement activity. That change yielded a more holistic pattern of leadership distribution.

In Gregory Elementary School a previous principal led an effort to implement the Accelerated Schools comprehensive school reform model. This effort entailed formation of five curriculum cadres, a school-site council, and a school-improvement planning process. While the cadres and council were chaired by teachers, and teacher influence on school directions, improvement plans, and professional development was reportedly strong, school personnel said that the previous principal played a more overt co-performance leadership role within those structures than the current principal. The current principal and assistant principal talked about deliberately stepping back from a co-performance leadership role to a more indirect advisory role in the cadres and site council. Teachers also reported that adherence to the needs assessment and planning processes became less stringent under the new principal. These cases show that formal organizational structures create an institutional framework for the distribution and enactment of leadership, but they do not determine how leadership plays out over time.

In sum, it is important to distinguish the formal *allocation* of leadership roles and responsibilities from what Leithwood et al. (2007) define as the *planful alignment* of leadership sources, practices, and influence. Formal bureaucratic structures do not necessarily require or facilitate the kind of consensus building, communication, interaction, and collaboration that we would associate with the planful alignment of leadership.

How Responsibility for Core Leadership Functions Is Distributed

Analyses of our case study data indicate that patterns of leadership distribution and influence can vary by core leadership practices—not only between schools and districts, but also for different focal points of activity within a given school. Overall, leadership is more commonly distributed for developing people and managing instruction than it is for setting directions and structuring the workplace. This emphasis probably reflects the influence of external policy, which may limit the freedom of principals and teachers to set goals or to redesign the workplace. Principals' beliefs about their own expertise and expertise from other sources also affect direction setting, and they are a key factor shaping the distribution of leadership for developing people and program management.

For all the schools and districts sampled in our study, state and federal curriculum policies, standards, and accountability systems influenced direction setting pervasively. Flexibility for principals and teachers depended greatly on the extent to which state and district authorities tended to mandate programs or to enable schools to select their own priorities and programs. Ultimately, however, leadership distribution for direction setting is shaped by how the principals view and enact their roles within the context of state and district policies, priorities, and leadership traditions, as illustrated in the following contrasting examples.

The principal and teachers at Forest Elementary School portrayed themselves as complying with state- and district-mandated programs (e.g., in reading and mathematics) and procedures (e.g., curriculum mapping, student data reports). The principal described herself and the School Leadership Committee as managing the implementation of externally mandated directions, not as setting directions per se. In contrast, the state and district did not mandate commercial or local programs at Overton Elementary School. While district authorities established system priorities for improvement based on results from state testing (e.g., in mathematics), the principal focused her leadership influence less on setting or enforcing program or achievement targets for improvement than on structuring the workplace (e.g., through a Leadership Committee, curriculum teams, and coaches), facilitating teacher learning (through lesson study and book study teams), and managing the instructional program (by monitoring teaching and teachers' professional learning plans) in ways that guided teachers to establish their own directions for improvement, collegially, in the context of state standards, test results, and district priorities.

Our cases highlight two circumstances in which principals may be more prone to act directly and less collaboratively to influence school directions for improvement:

First, a principal known to possess specific expertise in curriculum or instruction may be inclined to press forward on the strength of that expertise. At London Elementary School, for example, the principal was well known for her expertise in reading. She decided that children in her school would do better in reading if teachers were to adopt and implement a wider variety of teaching strategies. She communicated that goal to teachers, provided training herself and via an external expert, and she monitored teachers'

implementation of new strategies in the classroom and in grade team meetings. At the same time, she facilitated ongoing improvement efforts mandated at the district level prior to her appointment (curriculum writing, implementation of a commercial mathematics program)—collaborating with grade team and subject leaders, specialist teachers, and trainers provided by the externally developed mathematics program.

Second, a principal who believes that his or her teachers have become complacent may be inclined to press forward independently, launching efforts to set higher standards for teacher performance and student learning. At Playa Junior High School, for example, the principal sought school improvement through an effort to get teachers to be less didactic in their teaching, to broaden their repertoires of instructional strategies, and to focus on higher-order learning expectations. She explained her initiative as a strategy to motivate teachers and to help them improve student performance beyond the predominantly “acceptable” ratings the school had received under the state’s accountability system. She reported that she coached teachers, and made use of external consultants for in-service training, with this in mind. Teachers at Playa were also involved in curriculum writing projects in response to a district mandate. The principal delegated responsibility for leading and managing the curriculum development work to traditional subject heads and teams.

The general point of these accounts is that patterns of leadership distribution and influence can and do vary for different dimensions of leadership practice (i.e., setting directions, developing people, workplace [re]design, and managing the instructional program)—not only between schools and districts, but also for different focal points of improvement within a given school. Here, as in many other areas of interest, professional practice is more varied and complicated than the simplified patterns that often stand out in scholarly discussions.

Complexity of Leadership Distribution as a Function of Goal Type and Breadth

Leadership distribution patterns are affected by the goals that school personnel associate with leadership activity. Some goals (e.g., improving student performance in mathematics, strengthening professional community) are more encompassing than others (e.g., implementing a specific mathematics program, standardizing student discipline policy and practices). The more encompassing the goal, the greater the likelihood that multiple sources of leadership will be involved, and the greater the range of goal-related activities to which leadership might be attributed.

Contrasting illustrations from Forest Elementary School and London Elementary School will help to clarify this point. Both schools were involved in implementing new, district-mandated, externally developed mathematics programs. Student performance in mathematics at Forest Elementary was below average levels for the state, and the school was not currently satisfying Adequate Yearly Progress expectations; nonetheless, school personnel did not explicitly identify improved achievement in mathematics as a goal. Instead, the goal (one of many program-specific goals in the school) was simply to implement the district-mandated Grade 6-8 mathematics program. A district mathematics consultant visited the school weekly to assist math teachers with implementation. At the same time, two potentially related initiatives were underway. First, the school counselor

was preparing student assessment data reports at the beginning of the year, to assist teachers with lesson planning and tracking student progress. These reports were to reach teachers a few weeks prior to state testing dates so that teachers could identify students who might need additional coaching. The principal was reportedly keenly interested in student performance data, though no one could identify any actions that she had taken to influence the use of those data. Second, the school technology coordinator had been trained by district staff to facilitate the implementation of a computerized curriculum mapping and lesson-planning tool. The interview data for Forest Elementary School did not indicate that these strands of activity and the leadership sources and actions associated with them were deliberately coordinated. The result, from a teacher's perspective, was a leadership distribution pattern of anarchic misalignment (see Leithwood, Mascall, et al., 2007).

In London Elementary School, the principal's vision and goals included improving student success (not limited to mathematics), greater coherence in curriculum and teaching, and improved teamwork focused on student learning among teachers and with other stakeholders (e.g., parents). Although the percentage of London Elementary students performing at or above state standards in mathematics was acceptable (and high, relative to similar schools in neighboring districts), the principal's goals emphasized the success of all students and the need to boost learning outcomes beyond those touched on by the tests. Consultants working for the commercially developed mathematics program visited the school every six weeks to provide implementation training and assistance for the teachers. Not unlike the faculty at Forest Elementary, London Elementary faculty members were engaged in a curriculum project (mandated by the district but organized internally) that involved writing curriculum guides and common assessments keyed to the state curriculum in core subject areas. The principal arranged for the writers to get input from external program consultants. She relocated the writers' classrooms to ensure that all teachers had convenient, informal access to them for advice. Not only was the principal committed to the use of assessment data for identifying and addressing student learning needs, she delivered data-use training for teachers, and she sat in on grade-level team meetings to facilitate teachers' use of assessment data in their planning of six-week tutoring cycles. She also arranged for the parent coordinator to get trained in the mathematics program so that she could prepare ways to show parents how to help their children with mathematics homework. With the exception of the parent involvement piece, the activities related to implementation of the mathematics program in London Elementary were similar to activities at Forest Elementary (external program with in-service training, curriculum mapping aligned to state standards, assistance with data use). At London Elementary, however, these activities and varied sources of leadership were linked in a complex, collective pattern through the principal's actions. The overall effort encompassed multiple, core leadership practices (setting directions, developing capacity, workplace arrangements, managing instructional program) and multiple leadership sources associated with the focus on a shared learning goal. The pattern at London Elementary seems likely to produce a greater impact on student learning in mathematics than the pattern at Forest Elementary, where the focus was limited basically to program implementation. The leadership distribution scenario at London Elementary corresponds well to the concept of planful alignment across core leadership practices (Leithwood, Mascall, et al., 2007).

Student Learning and Leadership Distribution

No general claims about the relationship between student learning and school leadership distribution can be made on the basis of evidence derived from qualitative research at five schools. We did not find any obvious relationship between alternative patterns of distributed leadership and state test performance of students in each school from 2002/03 to 2005/06. We, however, consider two explanations for the apparent lack of any relationship related to distributed leadership: changes in leadership personnel, and within-school variation in leadership distribution.

First, any attempt to associate different patterns of distributed leadership with student learning must take into account the potential consequences of changes in key leadership positions. Among the five schools, only one of the principals had been in her position (at Forest Elementary) for more than two or three years. Teachers in London, Overton, and Gregory Elementary alluded to differences in leadership styles, distribution, and practices between the previous and current principals. The impact that these changes in leadership might have on student learning would not necessarily show up in the first year or two of the principals' tenure.

Second, our case study findings highlight the need to be sensitive to the focus and scale of leadership distribution and action as they relate to student learning. At the micro-level of specific goals and leadership tasks, different patterns of distribution across leadership sources and actions often co-exist in a school (e.g., improvement in mathematics and reading performance at London Elementary). It would be a logical error to infer that leadership as it is distributed and practiced for one leadership scenario, such as leading a new reading initiative, would necessarily be similar to leadership distribution across other scenarios, such as changes made in the science curriculum. The influence of more general concepts and approaches to leadership distribution on student learning outcomes, such as collective leadership (Section 1.1), shared leadership and professional community (Section 2.2) are more easily and empirically measurable than specific forms and arrangements of distributed leadership.

Implications for Policy and Practice

Four implications for policy and practice emerged from this section of our study.

1. Efforts to promote greater sharing or distribution of leadership need to operationally identify specific or desired leadership patterns. Simply invoking the term *distributed leadership* is meaningless, given the many different patterns distributed leadership can take. To understand the distribution of leadership one needs to explore evidence of actual behaviors and influences associated with core leadership practices and specific focal points of school-improvement activity. Principals working in similar organizational structures may enact their leadership roles and engage in distributed leadership in quite different ways.

2. It would be a serious mistake at this point to “harness” any major school reform effort cart to the distributed leadership “horse.” While we now have a better understanding of some patterns of leadership distribution as they operate in practice, evidence about the effects of leadership distribution on school-improvement initiatives or student learning is extremely modest. That said, other evidence (see Sections 1.1, 1.2) does suggest that principals’ sharing of leadership with others in planful, yet diverse, patterns of leadership distribution is probably a worthwhile way to approach improvement in student learning.
3. The task of encouraging more leadership distribution in schools should be viewed, first and foremost, as the task of nurturing principals’ dispositions toward such leadership. As school principals enact leadership roles, the beliefs and orientations they bring to the task matter a great deal. The extent to which leadership will be distributed in schools, and the forms it may take, are determined in large measure by what principals believe and feel about the key factors that come into play: external and internal influences on school direction setting, sources and uses of professional expertise (their own expertise, teachers’ expertise, expertise from external sources), and participatory or shared leadership.
4. Distributing leadership more widely in schools should not be viewed as a means of reducing principals’ workload. Leadership from teacher leaders and external sources is more likely to be goal- or initiative-specific. Principals, on the other hand, are responsible for a boundary-spanning role not typically performed by others, nor picked up by others in the absence of active principal leadership. Principals are typically involved in a great many leadership initiatives in their schools, including initiatives for which others have assumed lead roles. Their role to coordinate or link others’ leadership efforts is essential.

1.4 Leadership Practices Considered Instructionally Helpful by High-Performing Principals and Teachers

Key Findings

- Previous research has identified a set of core practices underlying the work of successful school- and district-level leaders. About 15 in total, these practices can be classified as *Setting Directions*, *Developing People*, *Redesigning the Organization*, and *Managing the Instructional Program*.
- Almost all leadership practices considered instructionally helpful by principals and teachers were specific enactments of these core practices.
- Teachers and principals were in substantial agreement about the leadership practices they considered to be instructionally helpful.
- Teachers generally agreed with one another in identifying helpful leadership practices. Teachers varying widely in the sophistication of their classroom instruction nevertheless identified as helpful most of the same leadership practices.
- School level (elementary, middle, high school) had a small effect on the importance teachers attached to a small number of leadership practices.
- Teachers and principals agreed that the most instructionally helpful leadership practices were: *Focusing the school on goals and expectations for student achievement*; *Keeping track of teachers' professional development needs*; and *Creating structures and opportunities for teachers to collaborate*.

Introduction

In the context of prevailing accountability policies, claims about successful or effective leadership practices are considered most defensible when they are justified by quantitative evidence linking the practices to standardized measures of student achievement. While other sections of this report provide such evidence, this section emphasizes the insights of principals and teachers. In striking this emphasis, we mean to extend a line of leadership research¹¹³ that has generated many useful insights in the past, even though its influence on policy and practice is muted at present. Our main question for the research described in this section is, “What leadership practices on the part of

¹¹³ See, e.g., Blase (1987, 1989).

school principals are considered, by principals and teachers, to be helpful in supporting and improving classroom instruction?”

Readers might wonder, reasonably, why we have chosen to pursue a line of research now diminished in influence. There are two closely associated reasons. First, hard, quantitative evidence cannot, by itself, provide the guidance for policy and practice that many educators and policy makers now expect of it. For example, the “grain size” of this evidence is almost always impractically large—that is, the leadership practices this sort of evidence tests are measured at a level of abstraction not directly implementable by real leaders in real organizational contexts. Furthermore, the data generated by these favored forms of research are far less conclusive than is sometimes claimed. The limitation is usually a function of the constraints on research designs which can be used in field settings, and the weak causal claims that can be made about data resulting from such designs.

Second, the line of inquiry we have chosen will enable us to reap certain benefits associated with mixed-methods research. Every style of research brings with it some important advantages but also some serious limitations. Synthesizing results across studies varying in research style offers potentially more robust justification for knowledge claims.¹¹⁴

Success in creating schools that contribute substantially to student learning depends in some measure on interaction with the specific social and organizational contexts in which school- and district-level leaders find themselves working. Nevertheless, evidence from district, school, and non-education organizations points to four broad categories of *core* leadership practices that appear to be effective across contexts.

We begin Section 1.4 with a summary of these core practices. Then we provide a synopsis of results from our research about leadership practices perceived by teachers and principals to be instructionally helpful. Finally, we compare the instructionally helpful practices identified in our research with the core leadership practices identified by prior research.

Prior Evidence

Four categories of core leadership practices have been identified by prior research. These categories are *Setting Directions*, *Developing People*, *Redesigning the Organization*, and *Managing the Instructional Program*. Each of these categories comprises from three to five more specific practices. Similar approaches to the classification of leadership practices are not difficult to find. Hallinger and Heck (1999) classify the practices in their instructional leadership model as “purposes,” “people,” and “structures and social systems.” Conger and Kanungo (1998) speak about “visioning strategies,” “efficacy-building strategies,” and “context changing strategies.” Robinson

¹¹⁴ Brewer & Hunter (1989).

and her colleagues (2008) have generated the most recent set of categories, and they are quite compatible with those described here.

Because we provided a comprehensive description of core leadership practices in a review of literature prepared as the starting point for our larger project,¹¹⁵ we provide only a brief summary of the core practices here. Our claim that these practices ought to be considered essential for successful leaders is based on reviews of empirical research and on illustrative original studies carried out in educational contexts.¹¹⁶ We also rely on a synthesis of evidence about managerial skills, compiled by Yukl (2002).

Setting Directions

This category comprises four specific practices: *Building a shared vision*, *Fostering the acceptance of group goals*, *Creating high performance expectations*, and *Communicating the direction*. Overall, it is a category of practices intended to establish what Fullan (2003) and others call “moral purpose,” a basic stimulant for the work in question. All of these practices are aimed at bringing a focus to the individual and collective work of staff members in the school or district.

Developing People

The practices in this category are *Providing individualized support and consideration*, *Offering intellectual stimulation*, and *Modeling appropriate values and practices*. Practices of this sort should communicate the leader’s respect for his or her colleagues, as well as concerns about their personal feelings and needs (Podsakoff et al., 1990). Encompassed by this set of practices are the “supporting” and “recognizing and rewarding” managerial behaviors associated with Yukl’s (1994) Multiple Linkages model, as well as Hallinger’s (2003) model of instructional leadership and the Waters et al. (2003) meta-analysis. The primary aim of these practices is capacity building, understood to include not only of the knowledge and skills staff members need to accomplish organizational goals but also the disposition staff members need to persist in applying those knowledge and skills. One critically important disposition is individual teacher efficacy—also a source of motivation in Bandura’s (1986) model.¹¹⁷ People are motivated by what they are good at. And mastery experiences, according to Bandura, are the most powerful sources of efficacy. Building capacity that leads to a sense of mastery is therefore highly motivational.

Redesigning the Organization

The four practices comprised in this category—*Building collaborative cultures*, *Restructuring the organization to support collaboration*, *Building productive relationships with families and communities*, and *Connecting the school to the wider community*—are intended to establish workplace conditions that will allow staff members to make the most of their motivations and capacities. The organizational setting in which people work shapes much of what they do. There is little to be gained by increasing

¹¹⁵ Leithwood et al. (2004a).

¹¹⁶ For example, Hallinger & Heck (1998); Leithwood & Jantzi (2005); Leithwood & Riehl (2005); Robinson et al. (2008); and Waters et al. (2003).

¹¹⁷ Bandura (1986).

peoples' motivation and capacity if working conditions will not allow their effective application. According to Bandura's (1986) model, people's beliefs about their situation form a source of motivation; people are motivated when they believe the circumstances in which they find themselves are conducive to accomplishing the goals they hold to be personally important.

Managing the Instructional Program

This category includes practices that focus on teaching and learning. They are *Staffing the program*, *Providing instructional support*, *Monitoring school activity*, *Buffering staff from distractions to their work*, and *Aligning resources*.

New Evidence

In this component of our larger study we have sought to ground, illustrate, and (when warranted) elaborate our understanding of core leadership practices, based on the experience of teachers and principals. Evidence collected for this component also highlights certain differences, by school level and by level of teachers' instructional expertise, in the values participants assign to the core practices.

Method

Sample. Evidence for this study derives from a sub-sample of 12 principals and 65 teachers in 12 schools. We selected the 12 schools initially based on one aspect of teachers' instructional practices, assessed during classroom observations collected in the first round of site visits. We selected six schools designated as High-Scoring Schools (HSS) from the larger sample because at least 60% of the teachers who had been observed received a high score on Standard 1 of Newmann's five standards for authentic instruction (described in more detail below). We selected six additional schools, designated Low-Scoring Schools (LSS), because at least 60% of their observed teachers received a low score on the same standard. We selected equal numbers of high- and low-scoring schools to represent elementary, middle, and secondary schools. To be absolutely clear, then, in this chapter, the meaning of a high (HSS) or low (LSS) scoring school is in reference to the ratings of the quality of teachers' instruction. One might expect that significant variations in teaching quality across schools would be reflected in significant differences in student achievement among the HSS and LSS. This was not the case in these 12 schools, however.

School size in those schools with a high proportion of teachers with highly rated instruction (HSS) ranged in size from 455 to 1,980 students, with an average of 924 students. There was greater variation in the sizes of schools with a high proportion of teachers with low ratings of instruction (LSS) (210 to 2,788 students), with an average enrollment of 1,081. In elementary and middle/ junior high schools, the average population of students was larger in the HSS than in the LSS (538 vs. 378 in elementary schools; 763 vs. 549 in middle schools). In the high schools, the average population of the LSS was much larger (2317) than that of the HSS (1,561). We used percentage of students eligible for free or reduced lunch as a proxy for socioeconomic status (SES). We

reported results in three categories: low poverty (less than 18% free or reduced lunch); mid poverty (18 to 65% high poverty); high poverty (66% or higher free or reduced lunch). There was an even distribution of schools across the SES levels. When averaged, the SES for both high- and low-scoring schools was at the mid-poverty level.

We measured the degree of student diversity as the percentage of white students in a given school: low diversity level = 66% or more white students; mid diversity = more than 18% but less than 66% white students; high diversity = less than 18% white students. As with achievement and student SES, average levels of diversity were approximately the same for both HSS and LSS .

Teacher interviews. We asked teachers about their approach to teaching, the lessons we had observed, the principal's role in guiding and supporting their work, factors that have the greatest influence on student learning, district influences, professional development opportunities, the school community, the extent of parental involvement, and what they would tell a new teacher about what it is like to work at this school.

Principal interviews. We asked principals and vice principals about the principal's leadership in areas such as student achievement goals, vision for the school, and student learning; making decisions about instruction; leadership distribution in the school; professional development experiences for principals and teachers; curriculum and instruction; school culture; state and district influences on administrators' and teachers' work in the school; and the impact of parents and the wider school community.

Classroom observations. We conducted observations in Grades 3, 5, 8, and 10, in language arts and mathematics classrooms. Each observation covered one instructional period (usually 30-40 minutes). Trained observers assessed the quality of instruction in the lessons they observed, based on four of Newmann's Five Standards for authentic instruction.¹¹⁸ This instrument helps observers to rate dimensions of instruction on a five-point scale, with 5 being the highest score. Observations focused particularly on the score teachers received on Standard 1: Higher-Order Thinking ("HOT" thinking), described as instruction that engages students in learning that goes beyond the recall of basic facts. Teachers received a high score on this standard when their whole lesson involved students in higher-order thinking (e.g., synthesizing, generalizing, explaining, hypothesizing, formulating conclusions that produce new understanding). For purposes of sampling, at least 60% of observed teachers in the six HSS scored either 4 or 5 on Standard 1. In the remaining six schools, 60% or more of observed teachers scored only 1 or 2 on this standard.

This method for sampling schools assumes that teachers are important sources of information about what their principals do and how their principals' actions affect their own classroom practice. The method also assumes that variation in the quality of teachers' instruction will be related to variation in the quality of the principals'

¹¹⁸ Newmann, Secada, & Wehlage (1995).

instructional leadership. Apart from addressing our primary research questions, this study was also a test of the second of these assumptions.

Data analysis. We transcribed all teacher and principal interviews and coded the transcripts, using the framework for the larger study. Two researchers went through all the transcripts and cross-checked their analyses for reliability. Classroom observers recorded specific details about what they saw and heard on a classroom observation form. Each school's level of student achievement was represented by the percentages of students meeting or exceeding the proficiency level, usually established by the state, on language and mathematics tests. We averaged these percentages across grades and subjects in order to increase the stability of scores,¹¹⁹ producing a single achievement score for each school for each of three years. Our analysis also included an achievement change score, calculated as the gain in percentage of students attaining or exceeding the state-established proficiency level from the first to the third year for which we had evidence.

We begin our report of results by describing the specific principal leadership practices that both principals and teachers identified as helpful in teachers' efforts to improve their instruction. Then we report the relationship between those practices and the framework of core leadership practices with which we began.

Specific Leadership Practices Perceived to Help Improve Instruction

A large proportion of both principals and teachers agreed on the importance of three specific practices:

- *Focusing the school on goals and expectations for student achievement* (100% principals, 66.7% teachers).
- *Keeping track of teachers' professional development needs* (100% principals, 84% teachers). Although professional development was often prescribed, designed, and delivered at the district level, principals were involved in managing teachers' attendance at workshops offered outside the school, as well as planning for, and sometimes providing, on-site professional development.
- *Creating structures and opportunities for teachers to collaborate* (91.7% principals, 66.7% teachers). Principals supported collaboration among teachers by scheduling times for teachers to meet and discuss how they were working through the curriculum.

Other practices attracting support from a smaller but still sizeable number of principals and teachers included the following:

- *Monitoring teachers' work in the classroom* (83.3% principals, 37.7% teachers). Principals mentioned formal classroom observations carried out for teacher evaluation

¹¹⁹ Linn (2003).

purposes; they also mentioned less formal ways of monitoring such as classroom visits and checking lesson plans.

- *Providing mentoring opportunities for new teachers* (33.3% principals, 26% teachers). Some teachers and principals referred to programs initiated by the district or the school to support staff members who were new to teaching or new to the school.
- *Being easily accessible* (50% principals, 27.5% teachers). Principals spoke about how they supported teachers' efforts in the classroom in a general way.
- *Providing backup for teachers with student discipline and with parents* (25% principals, 23.1% teachers). School safety and the management of students' behavior were of concern to administrators and teachers. Teachers were particularly appreciative of administrators who could be relied on to back them up teachers when they faced challenging situations with parents.

Finally, most principals (83.3%) considered *Staying current* to be a very important part of instructional leadership, although only one teacher seemed to be aware of it.

Instructional Leadership Differences across School Levels

Do principals and teachers at different school levels differ in their assessments of principals' efforts to provide instructional leadership? To find out, we ran comparisons. Results for principals indicated almost no variation, by school level, in the number of leadership practices identified as valuable. More variation across school levels was evident in the teachers' responses:

- *Monitoring teachers' classroom work* was identified by only 30% of middle school teachers, by a slightly larger proportion of high school teachers (34.8%), and by 54.5% of elementary school teachers.
- *Creating structures and opportunities for teachers to collaborate* was identified by 78.3% of high school teachers, 70% of middle school teachers, and 63.6% of elementary school teachers.
- *Allowing teachers flexibility regarding classroom instruction* was identified by 55% of middle school teachers, 43.8% of high school teachers, and 40.9% of elementary school teachers.

Instructional Leadership Differences and Teaching Quality

Were the six principals in our HSS engaged in different instructional leadership practices than those in the LSS? This question prompted our study initially, and it led us to sample schools based on the proportion of teachers who were rated high or low on Standard 1 of the Newmann scale during classroom observations. While the observation guidelines and processes we used were of good quality, we observed only one lesson for each teacher, so our evidence here must be considered suggestive and exploratory.

Principals and teachers concurred about differences in one leadership practice. *Providing instructional resources and materials* was identified as helpful by half of the principals and 25% of the teachers in LLS, whereas only one principal and 6% of the teachers in HSS identified this practice as helpful. We also note that teacher respondents in LSS (38%) attributed notably more importance to *Providing Backup for teachers for student discipline and with parents* than did teachers in HSS schools (18%). In short, it appears from this small sample that teachers in schools where our observation measures indicated less ambitious instructional practices were more likely to externalize their needs for instructional support (e.g., resources, backup for classroom management decisions) than to value support focused more directly on developing their instructional expertise.

Our separate analysis of principals' responses also requires acknowledgment of a sampling problem. The small size of the sample means that percentage differences in the principals' responses are deceptive. A difference of two principals between the high- and low-scoring samples is evident in the case of only two practices:

- *Participating in their own professional development* (6 HSS vs. 4 LSS)
- *Supporting community involvement in student learning* (2 HSS vs. 4 LSS)

Relatively large differences appeared in the identifications of HSS and LSS for the following practices:

- *Supporting teacher collaboration for purposes of instructional improvement* (85% HSS vs. 56% LSS).
- *Helping to ensure consistent approaches to student discipline* (18% HSS vs. 38% LSS).
- *Providing teachers with instructional resources and materials* (6% HSS vs. 25% LSS).
- *Supporting parental involvement in student learning* (88% HSS vs. 72% LSS scoring).

Principals' and Teachers' Judgments Compared with Core Leadership Practices

How do the practices identified as helpful by teachers and principals compare with our current formulation of core leadership practices? For an analysis pertaining to this question, we used, on one side of the comparison, only those practices identified by a sizeable number of respondents (the practices discussed above). Table 1.4.1 lists those practices in the right-hand column. The four sets of core leadership practices are listed in the left-hand column.

Two sets of identified practices are closely aligned with core practices related to *Setting Directions*. *Focusing the schools' and teachers' attention on goals and expectations for instruction and student achievement* is part of *Building a shared vision*, *Fostering acceptance of group goals*, and *Creating high performance expectations*. Four

identified practices are part of the *Providing individualized support* component of *Developing People: Keeping track of teachers' professional development (PD) needs, Being easily accessible, Providing backup for teachers for student discipline and with parents, Providing mentoring opportunities for new teachers.*

Only one set of identified practices matched up with Redesigning the organization. This was *Creating structures and opportunities for teachers to collaborate*. Similarly, only one set of identified practices—*Monitoring teachers' work*—matched up with *Managing the instructional program*.

From these comparisons, two results stand out. First, for several core leadership practices, there were no analogues among the practices identified by our respondents. Of the 16 core leadership practices, 7 went unmentioned by teachers and principals in their identification of practices that are instructionally helpful. We cannot know exactly why this is the case. One possibility is that principals might have enacted certain leadership practices that were not visible to teachers. Another is that, in fact, only some of the core leadership practices have much influence on teachers' classroom practice. Still another is that the principals in our study worked with a relatively narrow repertoire of leadership practices. Nevertheless, of the leadership practices frequently identified as helpful, one or more are associated with one of the four categories of core leadership practices.

Table 1.4.1
Core Leadership Practices and Practices Deemed Helpful by Teachers and Principals

Core Leadership Practices	Practices Identified as Instructionally Helpful
1. Setting directions	
1.1 Building a shared vision	-Focusing the school on goals for student achievement
1.2 Fostering the acceptance of group goals	-Focusing teachers' attention on goals for student achievement
1.3 Creating high performance expectations	-Focusing teachers' attention on expectations for student achievement
1.4 Communicating the direction	-Staying current
2. Developing people	
2.1 Providing individualized support and consideration	-Keeping track of teachers' PD needs -Providing general support/ open door -Being easily accessible -Providing backup for teachers for student discipline and with parents
2.2 Offering intellectual stimulation	-Providing mentoring opportunities for new teachers
2.3 Modeling appropriate values and practices	
3. Redesigning the organization	
3.1 Building collaborative cultures	
3.2 Modifying organizational structures to nurture collaboration	-Creating structures and opportunities for teachers to collaborate
3.3 Building productive relations with families and communities /	
3.4 Connecting the school to the wider community	
4. Managing the instructional program	
4.1 Staffing the instructional program	
4.2 Monitoring progress of students, teachers and the school	-Monitoring teachers' work in the classroom
4.3 Providing instructional support	-Providing instructional resources and materials
4.4 Aligning resources	
4.5 Buffering staff from distractions to their work	

Implications for Policy and Practice

Four implications for policy and practice emerged from this section of our study.

1. Instructional improvement requires a school-wide focus on goals and expectations for student achievement.
2. Principals play a key role in supporting and encouraging teachers' professional development needs. Leaders have a role to play in keeping track of those needs, as well as providing resources and materials to improve teachers' repertoire of instructional practices.
3. Policy makers and practitioners should avoid promoting, endorsing, or being unduly influenced by conceptions of instructional leadership which adopt an excessively narrow focus on classroom instruction. Classroom practices occur within larger organizational systems which can vary enormously in the extent to which they support, reward, and nurture good instruction. School leaders who ignore or neglect the state of this larger context can easily find their direct efforts to improve instruction substantially frustrated.
4. Principals must include careful attention to classroom instructional practices, but should not neglect many other issues that are critical to the ongoing health and welfare of school organizations.

1.5 Instructional Leadership: Elementary vs. Secondary Principal and Teacher Interactions and Student Outcomes

Key Findings

- The actions that principals take to influence instruction are of two complementary sorts. One sort aims to set a tone or culture in the building that supports continual professional learning (Instructional Climate). The second sort involves taking explicit steps to engage with individual teachers about their own growth (Instructional Actions).
- Principals whose teachers rate them high on Instructional Climate emphasize the value of research-based strategies and are able to apply them in the local setting.
- Instructional Actions include principals' direct observations and conversations with teachers, in their classrooms and in team meetings.
- Setting a tone and developing a vision (Instructional Climate) for student achievement and teacher growth is present in high-performing (high student achievement) schools of all grade levels, K-12.
- Secondary school teachers rarely report that school-level leaders engage in Instructional Action; this is the case for their principals, department heads, and other teacher leaders. However, elementary school teachers working with highly rated principals report high levels of both Instructional Climate and Instructional Actions.

Introduction

As with the sub-study reported in Section 1.4, this sub-study focuses on evidence about practices for successful instructional leadership as judged by educators close to the students—principals and teachers. Section 1.4 relied on evidence from schools selected for the high quality of the instruction their teachers provided. In Section 1.5, we examine evidence from schools in which principals received high effectiveness ratings from their teachers. Five of the 20 schools providing qualitative evidence for this Section were included in the sample of schools for Section 1.4

Prior Evidence

The Changing Role of the Principal from Manager to Leader

Historically, principals traditionally have been responsible for managing a well-run school. Managing staff, developing rules and procedures, and attending to the general operation of a building have always been part of the job. However, the conception of school management began to shift in the late 1970s. Highly influential school effectiveness studies¹²⁰ asserted that effective schools are characterized by an climate or culture oriented toward learning, as expressed in high achievement standards and expectations of students, an emphasis on basic skills, a high level of involvement in decision making and professionalism among teachers, cohesiveness, clear policies on matters such as homework and student behaviors, and so on.¹²¹ All this implied changes in the principal's role.

A further shift in the principal's role, beginning in the mid-1990s, involved the expectation that principals should provide instructional leadership. Theorists accepting this expectation contended that the principal's role had changed from management to instructional leadership.¹²² What the concept of instructional leadership means, however, remains vague. For example, studies of how teachers use their time during instruction have not focused on actions principals take to monitor or set expectations for the delivery of high quality instruction.¹²³ One purpose of our study is to clarify the concept, at least in some measure.

Much has been written about the importance of the principal as an instructional leader.¹²⁴ Often, however, this scholarship is markedly theoretical or vague (not the same things), failing to reflect the messiness of what principals do on a day-to-day basis. Much current research about instructional leadership is focused on distributed leadership¹²⁵ or on the leader's content knowledge.¹²⁶ Meanwhile, questions about how and when the principal might best engage with a teacher to address specific practices used by effective teachers have been under-researched.

One recent example of research about the link between the principal and teachers' professional development is provided by the study of IFL (Institute for Learning) implementation strategies in three urban school districts.¹²⁷ That study found that teachers reported varying amounts of instructional support provided by their principals. Principals whose teachers rated them higher on an instructional leadership scale had participated in more professional development focused on instructional leadership than had lower-rated principals. However, teachers' self-reports of their use of certain instructional strategies

¹²⁰ See, e.g., Brookover et al. (1978).

¹²¹ For a review of changes in principal praxis and practice, see Wenglinsky (2004).

¹²² E.g., Goddard (2002); Joyce, Calhoun, & Hopkins (2002); and Sergiovanni (2005).

¹²³ Hargreaves (1992); Newmann et al. (2001); and Smith (1998).

¹²⁴ E.g., Creemers & Reezigt (1996); Hallinger & Heck (1998); and Spillane, Halverson, & Diamond (2004); Wenglinsky (2002).

¹²⁵ Spillane (2004).

¹²⁶ Stein & Nelson (2003).

¹²⁷ MDRC, 2007.

were not confirmed in classroom observations by researchers. Furthermore, principals who were described by their teachers as providing instructional leadership were not seen to be providing direct feedback and frequent observations of classroom instruction during the researchers' site visits.

Here, similar to the procedure we followed in Section 1.4, we approach the identification of effective leadership practices using grounded theory to explore the perceptions of teachers and the actions of principals around instructional improvement. The theory of action shaping this investigation is based on the belief that high quality instructional leadership and high quality classroom instruction are linked, and together they impact students' learning. Thus, when either high quality instructional leadership or high quality instruction does not occur, student achievement outcomes can be variable as a result.

New Evidence

Our examination of instructional leadership in Section 1.5 is guided by the following questions.

1. What does instructional leadership look like to teachers?
2. Are teachers' reports of instructional leadership similar in substance to what principals have to say about instructional leadership?
3. Does instructional leadership look different at the elementary and secondary levels?

Method

To address these questions we used both quantitative and qualitative data from our research. Quantitative data included items from the second teacher survey and student performance data on state-level achievement tests. Qualitative data were provided by individual interviews conducted with teachers and principals.

As Appendix A explains in considerably more detail, our instrument for the second survey of teachers includes 131 items. In that survey, we obtained 3,983 responses from 127 schools. The response rate was 74% for schools and 56% for teachers. We obtained qualitative data in a subset of 36 schools in 18 districts, randomly selected from the larger pool of 43 districts. We conducted site visits, using two- to four-member data-collection teams. During the site visits, we observed 10-12 classrooms in both elementary and secondary schools, and we conducted individual interviews, using role-specific interview protocols, with district leaders, school principals, and classroom teachers. We recorded and transcribed all interviews.

Quantitative data for this sub-study derived from responses to 17 items from the teacher survey. These items asked about principal leadership behaviors deemed likely, in previous research, to influence teachers' instructional behavior. A factor analysis of responses to the 17 items resulted in two factors. All 17 items loaded on one of two

factors, and no question loaded on both. Ten survey items loaded on the first factor, with weights ranging from .707 to .867. The other seven items loaded on the second factor, with weights ranging from .640 to .771. (See Appendix B for the factor analysis matrix.) To address the possibility that the results of the principal component factor analysis were due to the two different types of question stems, we also ran a principal axis analysis; this analysis confirmed the initial results.

As Table 1.5.1 indicates, the 10 items loading on Factor 1 (measured on a six-point scale) ask teachers the extent to which their principals create a productive climate in the school. Items in Factor 1 are about setting a tone of continual professional growth in the school, where the work culture embraces inclusive decision making and the belief that we can always do better. We call this the Instructional Climate factor.

Table 1.5.1
Top vs. Bottom 20%¹²⁸ Mean Teacher Ratings per Building on Factor 1

	Factor 1			
	Top 20% (25 bldgs)	Bottom 20% (25 bldgs)	<i>t</i> -value	<i>p</i> -value
	Mean	Mean		
Overall Mean on Factor 1	5.38	3.68	85.68	<.001
4-1 My school administrator develops an atmosphere of caring and trust.	5.52	3.5	93.42	<.001
4-3 My school administrator creates consensus around purposes of our district mission.	5.35	3.63	76.16	<.001
4-6 My school administrator is effective in building community support for the school's improvement efforts.	5.48	3.64	77.72	<.001
4-7 My school administrator promotes leadership development among teachers.	5.32	3.65	70.9	<.001
4-8 My school administrator models a high level of professional practice.	5.58	3.74	85.64	<.001
4-9 My school administrator ensures wide participation in decisions about school improvement.	5.19	3.41	78.09	<.001
4-10 My school administrator clearly defines standards for instructional practices.	5.31	3.77	62.11	<.001
4-24 When teachers are struggling, our principal provides support for them.	5.07	3.33	81.46	<.001
4-25 Our principal ensures that all students get high quality teachers.	5.16	3.70	55.09	<.001
4-27 In general, I believe my principal's motives and intentions are good.	5.77	4.48	84.34	<.001

Source: Teacher Survey Round Two

Scale: 1 = Strongly disagree, 2 = Moderately disagree, 3 = Slightly disagree, 4 = Slightly agree, 5 = Moderately agree, 6 = Strongly agree

The seven survey items loading on Factor 2 measure the frequency with which specific actions with a direct focus on instructional improvement were enacted by the principal with individual teachers. These questions (see Table 1.5.2) measure the frequency with which the principal and the teacher have regular, on-going dialogue about best practices; they ask about the principal being in the classroom, observing instruction,

¹²⁸ Using Factor 1, we created a ranking of all 127 principals in whose buildings their teachers completed the survey. There were 25 buildings in the top 20% and 25 buildings in the bottom 20% of the continuum.

and providing specific feedback. Factor 2 is about making manifest the climate identified by Factor 1. We call this the Instructional Actions factor.

Table 1.5.2
Top vs. Bottom 20%¹²⁹ Mean Teacher Ratings per Building on Factor 2

	Factor 2			
	Top 20% (25 bldgs)	Bottom 20% (25 bldgs)	<i>t</i>-value	<i>p</i>-value
	Mean	Mean		
Overall Mean on Factor 2	3.73	2.46	132.01	<.001
4-13 How often in this school year has your school administrator discussed instructional issues with you?	3.86	2.69	76.4	<.001
4-14 How often in this school year has your school administrator encouraged collaborative work among staff?	4.27	3.12	70.43	<.001
4-15 How often in this school year has your school administrator provided or located resources to help staff improve their teaching?	3.87	2.65	68.82	<.001
4-16 How often in this school year has your school administrator observed your classroom instruction?	3.44	2.27	63.04	<.001
4-17 How often in this school year has your school administrator encouraged data use in planning for individual student needs?	3.97	2.37	119.47	<.001
4-18 How often in this school year has your school administrator attended teacher planning meetings?	4.06	2.31	97.35	<.001
4-21 How often in this school year has your school administrator given you specific ideas for how to improve your instruction?	2.69	1.79	54.71	<.001

Scale: 1 = never; 2 = 1-2 times; 3 = 3-5 times; 4 = 6-9 times; 5 = 10 or more times

Principals whose teachers' ratings placed them in the top 20% on either or both of the two factors were labeled high-scoring principals; principals whose teachers rated them low on either or both of the factors were labeled low-scoring principals.

¹²⁹ Using Factor 2, we created a ranking of all 127 principals in whose buildings their teachers completed the survey. There were 29 buildings in the top 20% and 30 buildings in the bottom 20% of the continuum.

We used student achievement data (mathematics proficiency in 2005-06 on state tests) as an independent variable to stratify the population of principals so that we could see whether high- versus low-scoring principals' schools cluster differently, based on their students' mathematics proficiency scores. (See the methodological appendix for details on how we computed achievement scores.) Finally, we stratified the data further by using building grade level, elementary versus secondary, as the last independent variable. For purposes of our analyses, elementary schools are grades K-6, and secondary schools are grades 7-12. Middle schools with grades 6-8 are included in the group of secondary schools. High- or low-scoring principals, high or low math achievement, and elementary or secondary level provided a sorting mechanism by which to identify the specific schools where we could begin an exploratory analysis of the interview data.

Site-visit schools for which we had interview data were distributed across the 127 schools in our complete sample. We included all schools ranked highest and lowest on Factors 1 and 2, and for which we had interview data, in the analysis. For the analysis, we used responses to three questions from the interview protocol for the teachers:

- What role does your principal play in guiding and supporting your work in the classroom?
- How often does the principal observe or visit in your classroom?
- What kinds of feedback or suggestions does the principal give to help you improve your instruction?

From the interview protocol for the principals, we examined the answers to the following questions:

- Tell me about the last time you visited a classroom. What was the purpose of the visit? Describe what you were looking for.
- What communication did you have with the teacher before, during, and after the visit?
- How do you know that changes are being made in instruction?
- How often do you visit classrooms?

We aggregated responses to the interview questions by question, and we analyzed the responses thematically. From the 127 schools included in the factor analysis, we analyzed data from a total of 20 high- and low-scoring schools (86 teacher interviews and 20 principal interviews).

Principals' and Teachers' Views of What Instructional Leadership Looks Like

Our initial analysis of the teacher survey data pointed to a clear distinction between principals' efforts to create a vision for learning, on the one hand, and what they

do to enact that vision, on the other. Setting a tone or culture of high standards for quality instruction appears to be different from what the principal does in order to be certain that high quality instruction actually occurs. Given that these two characteristics of instructional leadership emerged as unrelated factors, we examined them separately in order to better understand possible reasons for why they were revealed as different from one another. The second research question, “Are teachers’ reports of instructional leadership similar to what principals have to say about it?” is answered as the analysis of the teachers’ and principals’ interviews unfolds. The teachers and the principals were telling somewhat different stories.

Factor 1: Instructional Climate. Instructional Climate is about influencing the context in which instruction takes place. Clearly, what gets the highly rated principals out of bed each morning is what keeps them awake at night: they have a vision and believe that all students can achieve at high levels. They are focused on providing high-quality programs. One characteristic that clearly differentiates high-scoring principals from low-scoring principals is that high-scoring principals want to stay in their current schools until, as one principal put it, the “mission is accomplished.”

How do high-scoring principals establish a vision for the school that is centered on high student achievement? For one thing, they emphasize the value of research-based strategies. They speak about the amount of time that is invested in developing the school’s vision, gathering research information, and then applying it to the local setting. An elementary principal passionately stated, “I’ve researched and researched and done all I can to meet the needs [of my teachers] because they are very bright.” Analysis of the teacher interviews in that school reveals the research-based approach as being real and respected by the teaching staff. One teacher said of her high-scoring principal, “My principal is very firm in what she believes.” In a separate interview, her principal expressed the vision as being non-negotiable: “My expectations are high, and [the teachers] know that.” The principal went on to emphasize the importance of having an open dialogue about the vision for the school. “I simply put it out there: we’ve got to kick it up a notch.”

The vision for high academic achievement among the principals who score high on Factor 1 also includes a personal vision. As one principal stated, “Our ultimate goal is that our economically disadvantaged children will break the cycle of generational poverty. [We seek] to challenge the status quo and create conditions in which our children have the opportunity to be more academically successful.” His focus stands in contrast to that of a low-scoring principal from a different school who emphasized “the standards” without making any effort to connect the standards to a school-level vision. The emerging sense from the analysis of the principal interviews is that low-scoring principals care more about doing their job than impacting lives.

The differences in ratings on items loading on Factor 1 between high- and low-scoring principals are statistically significant in all cases. This difference is at least one scale step and more often one-and-a-half or more steps. The largest difference was on item 4-1, which asked teachers about the extent to which their principal develops an

atmosphere of caring and trust (\bar{X} =5.52 vs. 3.50). And the largest mean rating was on item 4-27 (\bar{X} =5.77), with teachers' agreement that, in general, the principal's motives and intentions are good (see Table 1).

Factor 2: Instructional Actions. In order to turn their visions of high student achievement into reality, high-scoring principals are actively engaged in providing direct instructional support to teachers. Instructional Actions in Factor 2 has to do with how the principal carries out that task. The actions taken by the principal guide and support teaching and learning according to the goal of enhancing every teacher's practices. Responses from the teacher survey indicate that, in particular schools, teachers saw the principal as frequently providing direct instructional support.

Differences were significant between high- and low-scoring principals on all items loading on Factor 2. In every case, the difference between top versus bottom 20% mean teacher ratings of principals is the difference of at least one scale step (see Table 2). The largest difference among the items in Factor 2 for the top and bottom 20% of buildings for perceived principal leadership is on item 4-18, asking how often the principal attended teacher planning meetings (\bar{X} = 4.06 vs. 2.31). And the largest mean rating is on item 4-14, asking how often the principal encouraged collaborative work among staff (\bar{X} = 4.27). It is particularly noteworthy that the smallest difference and the lowest-rated item is 4-21, which asked how often the principal has given teachers specific ideas for how to improve instruction. Teachers working with low-scoring principals indicated that somewhere between "Never" and 1-2 times per year is the frequency with which that happens. Even for high-scoring principals, teachers reported that the principal gave teachers specific ideas about how to improve instruction less than 3 times per year, on average. Nonetheless, as high-scoring principals implement their mission, their actions are very intentional and focused on high student achievement. In order for students to learn and grow continually, high-scoring principals claimed, teachers need to learn and grow at the same time.

Thematic analysis of the teacher interviews revealed three kinds of on-going activities or behaviors that clearly distinguished high-scoring principals from low-scoring principals.

1. *High-scoring principals have an acute awareness of teaching and learning in their schools.*

One means by which high-scoring principals gain awareness is collecting and examining lesson plans. As one principal noted, "I look at lesson plans and I attend team meetings." A teacher in that building independently concurred: "She makes sure my lessons are in line with the standard course of study." Another teacher explained, "If there are any questions on the lesson plans I turn in, she asks me, 'Why are you doing this? Is this relevant to what you are doing to meet this objective?'" Low-scoring principals described a "hands-off" approach to instructional leadership. One low-scoring principal indicated that she delegates all instructional leadership to an instructional "coach."

However, this coach has no role in teacher evaluation and is discouraged from providing any negative feedback to teachers.

2. *High-scoring principals have direct and frequent involvement with teachers, providing them with formative assessment of teaching and learning.*

Both high- and low-scoring principals said that they frequently visit classrooms and are “very visible.” However, differences between principals in the two groups come into sharp focus as they describe their reasons for making classroom visits. High-scoring principals frequently observed classroom instruction for short periods of time, making 20-60 observations a week, and most of the observations were spontaneous. Their visits enabled them to make formative observations that were clearly about learning and professional growth, coupled with direct and immediate feedback. High-scoring principals believed that every teacher, whether a first-year teacher or a veteran, can learn and grow. High-scoring principals described how they “meet each teacher where they are, by finding something good in what they are doing, and then providing feedback in an area that needs growth.”

In contrast, low-scoring principals described a very different approach to observations. Their informal visits or observation in classrooms were usually not for instructional purposes. Even informal observations were often planned in advance so that teachers knew when the principal would be stopping by. The most damaging finding became clear in reports from teachers in buildings with low-scoring principals who said they received little or no feedback after informal observations. One of these teachers stated, “I haven’t had any feedback or suggestions to date.” Another teacher considered the lack of feedback as a signal that “my principal has been in [my room] enough to know I am on top of things.”

Often, the frequency of informal classroom observations by low-scoring principals decreases as the year progresses. Low-scoring principals focus more on formal, summative observations, providing limited, non-threatening feedback, primarily to non-tenured teachers. As to why the principals did not link their observations to any discussion about instructional practice, or any attempt at broader efforts to unite teachers around a vision for the school, teachers said, for example, “He is supportive of my teaching philosophy.” Insofar as low-scoring principals do not regard the improvement of teaching and learning as an ongoing, long-term process, a culture for continual learning is compromised in their schools.

3. *High-scoring principals have the ability and interpersonal skills to empower teachers to learn and grow according to the vision established for the school.*

These principals seek out and provide differentiated opportunities for their teachers to learn and grow. For example, one high-scoring principal led Saturday workshops for new teachers in order to catch them up to the rest of the staff. Another high-scoring principal got teaching assistants involved in a workshop designed to help

staff members implement a new reading strategy. In contrast, teachers reported, low-scoring principals seldom suggested or supported professional growth opportunities.

Differences in Instructional Leadership between Elementary and Secondary Schools

Do principals in elementary and secondary schools differ in their enactments of the instructional leadership role? In examining this question, we found some clear differences and some similarities. Elementary and secondary school teachers' perceptions reflected in their responses to the Instructional Climate items (Factor 1) were similar. All teachers indicated the degree to which their principals were able to create a culture of professional growth and an emphasis on high student and teacher performance. However, elementary and secondary teachers' responses to the Instructional Actions items (Factor 2) were quite different, as the evidence in Table 1.5.3 indicates.

Table 1.5.3
Comparison of Teacher Ratings of Principals in the Top vs. Bottom 20% by Building Level

Leadership	Building Level		
	Elementary	Secondary	
Instructional Climate (Factor 1)*	High (top 20%)	16 64%	9 36%
	Low (bottom 20%)	7 28%	18 72%
Instructional Actions (Factor 2)**	High	19 66%	10 34%
	Low	11 37%	19 63%

* *Chi-Square* (1, $N = 50$) = 6.52, $p = .01$.

** *Chi-Square* (1, $N = 59$) = 4.91, $p = .03$.

For Factors 1 and 2, the percentage of high- or low-scoring principals differs by building level; a higher percentage of elementary school principals scored in the top 20% on instructional leadership on both factors. The reverse is true for the bottom 20% on instructional leadership, with secondary schools in significantly greater numbers at the low end.

These data confirm our qualitative results. According to interview data, elementary school teachers and principals characterize high-scoring principals that are effective instructional leaders as having a hands-on, direct role in instructional operations. They confirm that Instructional Climate Factor 1 is reinforced daily or continually. Teachers in elementary schools whose principals score in the top 20% on Factor 1 say that “things [new initiatives] will be supported because they are related to a greater vision.” This point is consistent with findings from many studies of leadership which have focused on the importance of setting a vision.

Elementary school principals who scored high in both Instructional Climate and Instructional Actions also led schools in which student achievement was relatively high. An elementary school teacher vividly describes the way in which Factor 1 and Factor 2 interact:

His [the principal's] role and the benefit that I see for me is really two-fold. One is that he is a strong instructional leader. He knows his stuff. It would not surprise me if he were walking in one day and could take over my classroom without skipping a beat. I think that he knows what he's talking about...when I sit down and talk with him about an observation that he has made, the questions that he asks, the suggestions that he gives, I know [that these] are from experience and I can trust them. They are the ones that are going to help move me along the path of instructional excellence. So he is not just a principal in name, but he knows what he is talking about. But then on the flip side, he also allows me to be the professional that I have been trained to be. He is not going to mandate that I teach a particular way. He is not going to tell me I have to be on this page on this particular day doing this particular grade-level expectation or this has got to be my learning target. I don't have to be in lock step. When you are as old as I am, you've been around a lot of different people and many times that is the expectation. That is one of the neat things I like about working at this school. [He gives the message that] 'I'm going to force you in a positive way to become better, but I'm going to allow you to bring your own personality into the classroom and make that happen.' So he is two-pronged on that way [that we are supported].

This combination of instructional climate and action blends on-going professional learning with a hands-on, direct role in instructional operations. High-scoring elementary school principals do both effectively.

A different story emerges from our evidence about secondary schools. In the interviews, secondary school principals repeatedly said that there was not enough time in the day to complete all their responsibilities, and they told us directly that instructional leadership “gets placed on the back burner.” Instructional leadership, or planning for it, takes place, instead, outside the school day. Secondary school principals assert that they provide instructional leadership through a structural framework of teacher leaders, in which responsibility is delegated to department heads. In this way, many secondary school principals believe, they act as instructional leaders even though they are one step removed from the process.

Data from the teacher interviews reveals, however, that instructional leadership actions at the secondary school level are generally not happening. “Administrators in general observe my classroom 1-2 times per year,” one teacher reported. Another stated, “I've never gotten any feedback that has affected my teaching or that has changed the way I teach besides broad initiatives that the school wants you to do, that everyone wants to see happen.” From our analysis of the teacher survey we found that Factor 2,

Instructional Actions, requires a direct role in instructional operations. As one teacher noted, “The only time that I was observed was by an assistant principal. It was the second year I taught. She was here five minutes...five minutes! And one of the things that she observed about me was that I start on the left-hand side of the room. Do you call that feedback?”

While principals pointed out that they frequently delegated instructional leadership to department chairs, teachers did not regard that sort of delegation as a source of instructional leadership. Most teachers described their department chairs as being in charge of the departmental budget; they also said that teacher leaders have a responsibility to attend team-leadership meetings called by the principal. We did not find any evidence in our interviews with secondary teachers that their department chairs or content-area colleagues were providing instructional leadership in the form of on-going classroom visits and dialogues about instructional practices. This was true whether the principal scored high or low on Instructional Climate Factor 1.

Even more surprising is the fact that secondary schools dominate the lowest achievement cell in our matrix of high- and low-scoring principals. Of the 31 schools in the bottom 20% in the ranking for all principals on Instructional Actions Factor 2, 20 schools were middle schools and high schools. Put differently, out of a total of 127 schools returning surveys, with 67 of those being secondary and 60 elementary, nearly 66% of all schools with principals scoring in the lowest 20% for taking direct action to support teachers’ instructional practices were middle and high schools.

The link to student achievement emerged from our quantitative analysis, with apparent differences between elementary and secondary levels emerging as a topic needing further investigation. From the initial sorting of all principals whose teachers rated them as either high- or low-scoring, there were five elementary schools and five secondary schools in the top 20% of all schools whose principals were rated high on Factor 1 and who also had high mathematics achievement. Low-rated principals on Factor 1 whose schools also had low mathematics achievement numbered three at the elementary level and eight at the secondary level.

For Factor 2, there were four elementary schools but no secondary schools whose principals were rated high (i.e., in the top 20% of all schools) and who also had high mathematics achievement. Principals who rated low on Factor 2 and whose schools were lowest in mathematics achievement numbered 2 at the elementary level and 7 at the secondary level. See Table 1.5.4 below.

Table 1.5.4
Relationships between Instructional Leadership, School Level, and Student Achievement

Leadership	Math proficiency	Elementary	Secondary
Factor 1 High (top 20%)	High (top 30%)	5 8%	5 7%
	Low (bottom 30%)	7 12%	1 2%
Factor 1 Low (bottom 20%)	High	1 2%	0
	Low	3 5%	8 12%
Factor 2 High	High	4 7%	0
	Low	7 12%	3 5%
Factor 2 Low	High	8 13%	6 9%
	Low	2 3%	7 10%

Note: The number in each elementary or secondary cell is the total number of buildings satisfying the characteristics of each respective cell. The percent is the number of buildings in each cell divided by the 60 elementary or the 67 secondary buildings in the total Round Two survey sample.

When mathematics proficiency for school year 2005-06 is used as a final sorting mechanism (independent variable) for the high- vs. low-scoring principals, the greatest differences, once again, appear at the secondary level. Factor 1 emerges as a significant positive feature of high-performing secondary schools, and the absence of Factor 1, or Instructional Climate, is strikingly evident in secondary schools with low mathematics performance.

Findings for Factor 2 (Instructional Actions) are equally remarkable. There were no secondary school principals who scored high on Factor 2 whose schools also had high mathematics achievement. At the other end of the scale, there were seven secondary schools whose principals ranked the lowest on Instructional Actions and who also had low mathematics achievement.

Discussion

About the concept of instructional leadership, a clear distinction appeared in our data, suggesting a missing nuance in much of the existing scholarship. It is a distinction between principals who provided support to teachers by “popping in” and “being visible” as compared with principals who were very intentional about each classroom visit and

conversation, with the explicit purpose of engaging with teachers about well-defined instructional ideas and issues.

We did find that high-scoring principals emphasized the establishment of a vision for their schools. In many schools, however, the principal's engagement with individual teachers to ensure that the vision would be realized appeared to not be occurring—especially not in middle schools and high schools. Some of these principals, mostly at the secondary level, wrongly assumed that if a vision of high-quality instruction was well articulated, then high-quality instruction would happen—without much further action on their part or through the delegation of necessary actions to department heads and other teacher leaders. Indeed, one major finding is that department heads provide little to no instructional leadership. They appear to be particularly well-situated to offer leadership to their colleagues, but that potential for leadership appears nonetheless to be a squandered resource. Why this might be so is a question worthy of further investigation.

Unsurprisingly, our evidence also points to the continuing preference of many of teachers to be “left alone.” These teachers typically view the presence of a principal in their classrooms as unnecessary and sometimes bothersome. Said one teacher, “I haven't been observed in 17 years, and that's OK with me.” Another teacher noted that her principal had previously been a school psychologist, not a classroom teacher, and for that reason the teacher believed that her principal had an insufficient grasp of the stresses of teaching and could not “really give me any realistic suggestions of how to be a better instructor.” Maintenance of the status quo, which for most secondary school teachers meant not having direct and frequent contact with the principal (or anyone else, for that matter) about ways to improve instruction, was preferred.

If teachers do not look to principals as instructional leaders, where will they get feedback about their instruction? Our findings indicate that discussions about teaching and learning occur informally between colleagues and peers; they occur less frequently in the context of structured team meetings, content-area meetings, or formal team leader-follower channels. Infrequent provision of instructional leadership by principals, especially at the secondary school level, leaves little room for dialogue about teaching and learning between leaders and followers. Consistent with Supovitz's (2006) findings, our research indicates that under current secondary school structures, authority relationships tend to discourage candor about problems that secondary school teachers may be having.

Our evidence did not provide a strong test of the impact of instructional leadership on student performance. Nevertheless, schools ranked in the bottom of the instructional leadership continuum for Factor 1 or Factor 2, with student achievement scores in the lowest 30%, were predominantly secondary schools. It is even more notable that the raw number and relative percent of secondary schools with low ranking and low achievement were significantly higher than for elementary schools.

Given that this study identified a random sample of districts across the United States as participants, and that we have data only for districts that chose to become

involved, actual differences between elementary and secondary schools nationwide may be even wider than those we have discovered. Supportive instructional actions, such as those constituting Factor 2, may be extremely under-provided in secondary schools. Furthermore, establishing a culture of professional learning, as identified by the actions in Factor 1, appears to have greater effect on student outcomes in elementary schools than it does in secondary schools. Overall, secondary schools appear to suffer from a “double whammy”—low professional growth climate and few actions taken to support classroom instruction appear to be indicators of lower student performance. Academic achievement in elementary schools, however, appears to be more sensitive to principals who score low on either Factor 1 or Factor 2.

Implications for Policy and Practice

Four implications for policy and practice emerged from this section of the study.

1. District leaders should acknowledge, and begin to reduce, ways in which secondary school principals are limited in their capacity to exercise instructional leadership by the work required of them in their role as it is currently structured. District administrators are normally aware of the managerial effectiveness of their principals regarding immediate tasks and problems. They may also be aware of principals’ efforts to create an instructional vision in which student achievement is an explicit priority. Still, a troublesome pattern apparently persists: secondary school principals do not, according to our data, interact with teachers frequently and directly about instructional practice. District leaders need to find ways to help secondary and elementary school principals work with teachers in order to improve. They also need to help principals structure their work schedules in order to find sufficient time to do this.
2. The role of department head in secondary schools should be radically redefined. Department heads should be regarded, institutionally, as a central resource for improving instruction in middle and high schools. Our evidence confirms the managerial role in which many department heads are now entrenched. Relegating them exclusively to a managerial role amounts to a great waste of a potential resource for instructional improvement. A radical redefinition of the role would help school districts solve the historical problem of inertia in secondary schools.
3. Principals need to be held accountable for taking actions that are known to have direct effects on the quality of teaching and learning in their schools. Creating a vision for instructional improvement is not enough. Districts should expect principals to take targeted action aimed at implementing instructional leadership within each school.
4. Most districts will need to have honest and in-depth discussions with their principals to develop procedures for systematically and practically monitoring implementation of instructional leadership. The needs and circumstances of

elementary and secondary school principals may need to be differentially addressed, however the bottom line would have each principal expected to take specific steps to enact instructional leadership in his or her school.

1.6 Poverty, Size, Level and Location: The Influence of Context Variables on What Leaders Do and What They Accomplish

Key Findings

- As the poverty and diversity of students served by a school increase, teachers' perceptions of the contexts in which they work become more negative.
- As district and school size increases, teachers' perceptions of the contexts in which they work become more negative.
- The leadership teachers experience is perceived to be more favorable in elementary as compared with secondary schools, and in small as compared with large schools.
- Greater district size is associated with increases in shared leadership.
- Most features of the context in which teachers work are viewed as more positive in rural as compared to urban schools.

Introduction

Why do school leaders do the things they do? When they are successful, what explains their success? Scholarly and professional discussion of these questions has consistently emphasized *context* as a crucial factor. As Evans notes, “school leaders negotiate multiple contexts and stakeholders, often with competing and overlapping interests” (2007, p. 159). Leadership success depends greatly on the skill with which leaders adapt their practices to the circumstances in which they find themselves, their understanding of the underlying causes of the problems they encounter, and how they respond to those problems. Context may also constrain leaders, particularly when pressures in the environment are severe.¹³⁰ In education, pressures arising from rapidly changing communities challenge leaders as they work to create more effective organizations—in the presence, for example, of competition from charter schools or problems created by liberal district transfer policies.

This chapter focuses on three important topics related to context: the socio-economic and racial mix of students who come to the school, characteristics of the community and the district, and the school's size and complexity.

¹³⁰ Ruef (1997).

Prior Evidence

Several strands of well-tested leadership theory acknowledge the importance of context. *The multiple linkages model* asserts a prominent role for “situational variables”—the size of the work group, organizational policies and procedures, the prior training and experience of members—which mediate what the leader is able to do.¹³¹ For example, the size of the school will have a significant effect on how well teachers know other teachers; it also will affect the way in which teachers form workgroups or departments to talk about their work.¹³² The fragmented nature of professional communities, rather than size per se, becomes a constraint on how principals try to organize professional communities to focus on instruction and student learning.

Resource dependence theory argues that organizations are dependent on obtaining resources from their environments, and that they adapt their organizational forms and functioning in order to survive in the settings in which they are located.¹³³ This perspective is consistent, for example, with the assumption that schools in wealthier settings are likely to have better teachers, better leaders, more actively involved parents, and better results.¹³⁴ It also argues, however, that leaders are responsible for building bridges and adapting to the resource constraints that they experience. Schools in poor rural communities, for example, may be more likely to build bridges to the state or to other non-local funding sources, given the local constraints they face.¹³⁵ Charter schools, which are particularly vulnerable to resource constraints, may need to depend more on non-educational community members than regular public schools do.¹³⁶

Institutional theories take a different view, arguing that schools (like other major social service sectors) are so constrained by public expectations that they have limited options for becoming very different.¹³⁷ Public agencies that have limited autonomy, owing to extensive public oversight, find it difficult to develop their own policies and initiatives for change.¹³⁸ This does not mean that successful leadership activity in schools is impossible, but it does not come easily. Institutional research suggests, furthermore, that the larger set of social expectations about issues, such as how discipline should be handled or how much differentiation in curriculum is appropriate, can be more critical than local conditions.¹³⁹ In the United States, for example, many parents expect that their children will have access to Advanced Placement or other advanced courses, and these expectations may constrain efforts to adopt a uniform, standards-based curriculum for all students.

¹³¹ Yukl (2002).

¹³² Lee, Bryk, & Smith (1993); Louis, Marks, & Kruse (1996).

¹³³ Casciaro & Piskorski (2005); Romanelli (1991).

¹³⁴ Lee et al. (1993).

¹³⁵ DeYoung (1995).

¹³⁶ Holyoke, Henig, Brown, & Lacireno-Paquet (2007); Renzulli (2005).

¹³⁷ Rowan & Miskel (1999).

¹³⁸ Boschken (1998).

¹³⁹ Arum (2000).

Leadership research has been somewhat scattered in its examinations of context. At one extreme, researchers have claimed that local context trumps all other factors. Claims of this sort often are based on single or small-number case studies. In contrast, researchers working from quantitative studies treat contextual variables as factors to be controlled in inquiries about leadership effects. This approach essentially dismisses context as a substantive problem. Much less attention has been given to the relationship between contexts and the practice of education leaders.¹⁴⁰ From the perspective of research design, contexts can be conceptualized as antecedents of leadership practices; they also can be conceptualized as mediators and moderators of leadership effects on organizational outcomes.

New Evidence

Equity has been a key focus in our investigations of contexts and leadership. We have sought not only to learn about leadership that might yield equitable outcomes for students (although it was beyond the boundaries of this study to look for leadership effects that were actually “closing the gap”); we also have asked whether leadership itself was equitably distributed among schools. Is the leadership that matters for student learning—shared leadership and instructional leadership—well distributed so that all teachers and students have access to its benefits? In particular, does the leadership that matters vary across contexts:

- between schools, depending on the types of students who attend? In other words, do poorer and wealthier schools have similar levels of leadership focused on improving schools and classrooms?
- by the size and location of school districts? We know from other studies that larger, urban districts tend to be less effective, particularly for lower-income students; but we do not know to what extent, or how, leadership effects might explain that pattern of outcomes.
- between elementary and secondary schools? Might variability in leadership account for some of the differences we have observed in student performance on state benchmarks, where secondary schools did not score as well as elementary schools?

Method

To address these questions, we examined evidence provided by the first and second rounds of principal and teacher surveys, each of which contained measures of leadership behaviors shown elsewhere in this report to be related to student achievement. Our analysis consisted primarily of analysis of variance, in which we compared mean scores of teachers in different settings on various leadership measures.

¹⁴⁰ Hallinger (1996); Hallinger & Murphy (1986).

In these efforts we emphasized our investigation of leadership variables pertaining to the distribution of leadership within a school. We examined teachers’ perceptions of principals’ efforts to involve others, and teachers’ descriptions of their own leadership for improvement (measured by sense of collective responsibility and the development of shared norms and values). In addition we examined the degree to which leadership is exercised to promote a focus on improved curriculum and instruction, both at the school and district level.

Student Differences: Poverty and Diversity

Our results from Round One of the teacher survey indicate that, generally, as student poverty and diversity increase, teachers’ experience of shared leadership devolving from the principal decreases (See Table 1.6.1 below, and C1.6.1 in Appendix C). We found teachers’ leadership focused on collective responsibility for student learning to be more likely present in high poverty schools than in low poverty schools, but teachers are less likely in high poverty schools to share norms around teaching and instruction. Also, teachers in higher-diversity schools report that teachers’ leadership focused on collective responsibility for student learning is lower than that found in low-diversity schools, and, again, that teachers in low-diversity schools are less likely to share norms around teaching and instruction. Finally, the level of diversity is not statistically related to teachers’ reports of the principal as an instructional leader ($F = 0.23, p = .797$; see Table 1.6.2).

Looking at teacher ratings of school climate, school openness to parents, and district support (from Round Two of the teacher survey), we find once again that as poverty and diversity increase, teachers’ ratings of climate, openness to parents, and district support decrease (see Table 1.6.1 below, and Appendix C1.6.1).¹⁴¹

Table 1.6.1
One-Way Analyses of Variance for Leadership Variables by Poverty

	ANOVA		Poverty Level Pairwise Contrasts [†]		
	<i>F</i>	<i>p</i>	Low (A)	Medium (B)	High (C)
1 Parent Teacher Shared Leadership	3.88	.021	A > B		
2 Principal as Instructional Leader	10.49	<.001		C > B	C > A
3 Shared Leadership Within the School	9.59	<.001		B > C	A > C
4 Collective Responsibility	7.88	<.001		C > B	C > A
5 Shared Norms	41.73	<.001	A > B	C > B	A > C

¹⁴¹ The level of poverty, however, is not statistically related to teachers’ reports of district support ($F = 1.31, p = .272$; Table 1.5.1).

6 Teachers' Perceptions of Parent Influence	40.72	<.001	A > B	B > C	A > C
7 Principal as Trusted Colleague	3.96	.019	A > B		
8 Focused Instruction	52.35	<.001	A > B		A > C
9 Teacher Ratings of School Climate	9.36	<.001	A > B		C > B (<i>p</i> =.06)
10 Teacher Ratings of School Openness to Parents	4.43	.013	A > B		
11 Teacher Ratings of District Support	1.31	.272			

Source: 1 – 8, Teacher Survey Round One; 9 – 11, Teacher Survey Round Two.

[†]For the planned pairwise contrasts among the means, the comparisons shown represent two means significantly different from each other at $p < .05$, *t*-test two-tailed. If a contrast is not shown, the two means in question are not significantly different from each other.

From Round Two of the principal survey, we constructed six variables that parallel the teacher survey variables or are of conceptual interest on their own. They were Principal Self-Rating on Shared Leadership Skills, Principal Self-Rating on Improvement Planning Focus, Principal Rating of District School Improvement Focus, Principal Rating of District Shared Leadership Skills, District Policies to Support Organizational Learning, and District Focus on Data-Based Decision Making (see Table C1.6.2 in Appendix C). On none of the six was there a significant main effect for poverty. Looking at the effect of diversity, we find a significant main effect for Principal Self-Rating on Improvement Planning Focus, Principal Rating of District School Improvement Focus, and District Focus on Data-Based Decision Making (see Table C1.6.3 in Appendix C). On these three variables, principals in medium-diversity buildings gave higher ratings than those in low-diversity buildings.¹⁴²

Location Differences: District Size and Urbanicity

We found a significant main effect for district size on all eight variables from Round One and all three from Round Two of the teacher surveys (see Table 1.6.2). Here, large districts have significant disadvantages on all principal and teacher leadership variables: principal and teacher leadership diminishes as we move from small to large districts—with, however, a single exception. For shared leadership, there is a clear and opposite trend: the larger the district, the greater the degree of shared leadership as reported by teachers. Once again as district size increases, teachers' ratings of climate, openness to parents, and district support decreases.

¹⁴² In our examination of the leadership variable on the six context variables from Round One of the principal survey, we found only a small number of statistically significant main effects, which is not unlike what we see in Table 1.5.2. Compared with the teachers in their buildings, principals are not much attuned to their building, district, or demographic context in their experience of leadership.

We found a significant main effect on only two of the six variables on the second round of the principal survey: Principal rating of district shared leadership skills and District policies to support organizational learning. On both, principals from small districts gave higher ratings than principals from large districts (see Table C1.6.4, Appendix C).

Results also indicate that schools located in larger metropolitan areas exhibit significant disadvantages regarding the presence of leadership—from principals as instructional leaders and from shared norms among teachers (Table C1.6.5, Appendix C). Teachers’ shared leadership with parents ($F = 1.99, p = .113$) and teachers’ collective responsibility for student learning ($F = 1.63, p = .179$) were not statistically related to urbanicity. Teachers’ ratings of climate and district support diminish as we move from rural to urban. Teachers’ ratings on school openness to parents were not related to urbanicity ($F = 1.12, p = .342$).

Of the six variables from the second round of the principal survey, only one, District Focus on Data-Based Decision Making, showed a significant main effect ($F = 3.45, p = .018$); principals in urban districts rated it higher than principals in suburban districts.

Table 1.6.2
One-Way Analyses of Variance for Leadership Variables by District Size

	ANOVA		District Size Pairwise Contrasts [†]		
	<i>F</i>	<i>p</i>	Low (A)	Medium (B)	High (C)
1 Parent Teacher Shared Leadership	7.96	<.001		B > C	A > C
2 Principal as Instructional Leader	30.76	<.001		B > C	A > C
3 Shared Leadership Within the School	5.31	.005	B > A	C > B	C > A
4 Collective Responsibility	11.39	<.001	A > B	B > C	A > C
5 Shared Norms	37.26	<.001	A > B	B > C	A > C
6 Teachers’ Perceptions of Parent Influence	22.60	<.001	A > B	C > B	A > C
7 Principal as Trusted Colleague	18.32	<.001		B > C	A > C
8 Focused Instruction	24.09	<.001	A > B	B > C	A > C
9 Teacher Ratings of School Climate	27.94	<.001		B > C	A > C
10 Teacher Ratings of School Openness to Parents	19.67	<.001		B > C	A > C
11 Teacher Ratings of District Support	7.32	.001		B > C	A > C

Source: 1 – 8, Teacher Survey Round One; 9 – 11, Teacher Survey Round Two.

[†]For the planned pairwise contrasts among the means, the comparisons shown represent two means significantly different from each other at $p < .05$, *t*-test two-tailed.

School Differences: School Level and School Size

Compared to high schools and middle schools, elementary schools experience higher levels of all forms of leadership associated with student learning (see Table 1.6.3). Teachers in middle and high schools are less likely to trust their principals, less likely to report that they actively involve parents in decisions, and less active as instructional leaders in their buildings. Also, teachers in elementary schools report higher ratings of climate, openness to parents, and district support. At the secondary level, high schools show a higher “leadership deficit” than middle schools, as well as lower ratings on climate, openness to parents, and district support.

School size matters, as well (see Table C1.6.6 in Appendix C). For our analysis we stratified school size (number of students) into quintiles. We found a significant main effect for school size on all eight variables from Round One and all three from Round Two of the teacher surveys. As in large districts, large schools have significant disadvantages on all principal and teacher leadership variables; principal and teacher leadership diminish as we move from small to large buildings. Also, teachers’ ratings of climate, openness to parents, and district support diminish as we move from small to large buildings.

Table 1.6.3
One-Way Analyses of Variance for Leadership Variables by Building Level

	ANOVA		Building Level Pairwise Contrasts [†]		
	<i>F</i>	<i>p</i>	Elem (A)	Middle (B)	High (C)
1 Parent Teacher Shared Leadership	64.42	<.001	A > B	B > C	A > C
2 Principal as Instructional Leader	92.01	<.001	A > B	B > C	A > C
3 Shared Leadership Within the School	3.76	.023			A > C
4 Collective Responsibility	71.09	<.001	A > B	B > C	A > C
5 Shared Norms	115.09	<.001	A > B		A > C
6 Teachers Perceptions of Parent Influence	20.17	<.001	A > B	B > C	A > C
7 Principal as Trusted Colleague	76.38	<.001	A > B	B > C	A > C
8 Focused Instruction	10.46	<.001	A > B	C > B	
9 Teacher Ratings of School Climate	40.65	<.001	A > B	B > C	A > C
10 Teacher ratings of School Openness to Parents	26.31	<.001	A > B	B > C	A > C
11 Teacher Ratings of District Support	9.77	<.001		B > C	A > C

[†]For the planned pairwise contrasts between the means, the comparisons shown represent two means significantly different from each other at $p < .05$, t -test two-tailed.

Poverty and District Size

Our results indicate that student poverty and district size amount to a double disadvantage. Larger schools with high-poverty student populations are most likely to experience limited leadership—even when we control for the effects of school level and urbanicity.

Implications for Policy and Practice

Five implications for policy and practice emerged from this section of our study.

1. Policies and programs should be developed at the state level to address leadership deficits. While the leadership deficits we have uncovered cannot account in any direct way for the achievement gap, they do provide significant evidence that leadership is unequally distributed among U.S. schools. Because leadership deficits are most apparent in schools marked by many other disadvantages known to affect student achievement, it is reasonable to argue that improving leadership capacity in these schools could also help to boost programmatic and curricular initiatives to increase equity. In particular, principals in more disadvantaged school settings are likely to need more professional development and support in their efforts to sustain practices and behaviors that will increase the involvement of others—teachers and parents—in the work of improvement. The sharing of leadership increases the total energy available to support students in learning.
2. Policy makers and educators should avoid “one size fits all” approaches to leadership development. In their efforts to develop strong programs of instructional and shared leadership, high school principals work at a distinct disadvantage compared with elementary school principals. One-size-fits-all models of professional development for principals (widespread throughout the United States), are unlikely to work well in complex and difficult high school settings (the same point holds for some larger middle schools). This does not mean, of course, that principals in elementary and secondary schools cannot learn from one another; but general leadership models provide only a start.
3. High-poverty schools, especially large high-poverty schools, need leadership development programs tailored to their specific needs. These are difficult leadership contexts that require additional interventions and support. While many whole-school reform models geared to urban and high-poverty contexts provide excellent professional development for teachers, few provide anything that directly address the needs and experiences for principals in high poverty settings. As we have noted in our analysis of changes in state leadership, support needs to be targeted to schools that are needy, particularly schools and districts that are not meeting AYP targets.
4. Educators and policy makers should develop models of shared leadership and parent involvement that are context-relevant. One reason why principals in urban and high-poverty settings tend not to share leadership may be that they operate under

conditions in which that kind of involvement is not rewarded. Even where urban and high-poverty school districts emphasize public engagement, the policies and preferences tend to “trickle down” to schools only in the form of mandated representation on school councils—a weak strategy for distributing leadership. Without better models and support, principals will continue to focus on the daily pressures of running the school, and not on creating a more democratic climate.

5. Educators and policy makers should develop clearer programs to support instructional leadership, particularly in secondary schools. Many important studies of instructional leadership have been conducted in elementary school settings. As valuable as much of this work has been, we know that instructional leadership in secondary schools must differ from instructional leadership in elementary schools, simply because high school principals cannot be experts in all subject areas. Many of the strategies that seem to work well in elementary schools do not necessarily work as well in high schools. We cannot expect to see significant improvement until this issue is addressed more clearly.

1.7 A Synthesis of Implications for Policy and Practice about School Leadership

1. *In order for principals to devote more time and attention to the improvement of instruction, their jobs will need to be substantially redesigned.* In many schools this will require the creation of other support roles with responsibility for managing the important tasks only indirectly related to instruction. The gap between how principals spend their time and what they are being encouraged to do has persisted for at least a half century. By now it should be obvious that structural changes in the work of school leaders are a pre-condition for the emergence of this significant change: cajoling, demanding, advocating, explaining, and wishful thinking—typical strategies used to date—just will not do it. Differentiated administrative staffing—with different administrators assigned to managerial and academic roles—is one example of changes that merit exploration.
2. *Distribution of leadership to include teachers, parents, and district staff is needed in order to improve student achievement.* School and district leaders should, as a matter of policy and practice, extend significant influence to others in the school community as a foundation for their efforts to improve student achievement. Such an expansion of influence to others will in no way diminish their own influence.
3. *District-level and state policy makers must assume the responsibility for nurturing principals' dispositions toward the distribution of leadership.* Promoting productive forms of distributed leadership in schools creates new challenges for principals, and without sustained encouragement and support from outside the school it is unlikely to become common practice. Distributing leadership more widely in schools is definitely not a means of reducing principals' workload, as has sometimes been suggested; neither is it likely to diminish the principal's own influence. This conclusion brings us back to our second point about the need for serious consideration of redesigning principals' jobs.
4. *Policy makers and practitioners should avoid promoting conceptions of instructional leadership which adopt an exclusive or narrow focus on classroom instruction.* Our study suggests that successful school-level leadership involves significant attention to classroom instructional practices, but it also includes attention to other issues critical to the health and welfare of schools. Furthermore, school leaders can have a significant influence on teachers' classroom practices through their efforts to motivate teachers and create workplace settings compatible with instructional practices known to be effective.
5. *Significant additional support should be provided for middle and high school principals to foster the kind of instructional leadership that is "workable" in their larger and more complex settings.* Our data suggest that efforts must be made to develop instructional leadership capacities in the middle-level leaders in these

settings. Secondary school leadership-development initiatives should focus at least as much effort on improving the leadership capacities of department heads as principals and vice principals.

6. *Educators and policy makers should avoid “one size fits all” leadership development programs.* In particular, more dedicated programs should be developed to: (a) support instructional leadership in secondary schools, and (b) address the specific leadership needs of large, high-poverty schools. Principal preparation and professional development programs should continue to emphasize both the “softer” (emotional) and the “harder” (behavioral) aspects of leadership.

Part Two

Districts and Their Leaders: How They Foster School Improvement and Student Learning

Preface

Much like an obscure actor cast in a television series that suddenly becomes wildly popular, school districts and their leaders have recently been rediscovered in the ongoing drama of school reform. Today the specter of “Desperate Superintendents” lights up the education screen wherever a child has been left behind. This development stands in stark contrast to scenarios played out across the United States not much more than a decade ago, when districts were pretty much “restructured” out of the leadership game by the attraction of site-based management. In an effort to rid education of its “stifling bureaucracies,” policy makers in many areas devolved authority for school governance increasingly to principals (and sometimes to teachers and parents) in regular as well as charter schools, and these newly empowered authorities gained a dubious opportunity to spend time dealing with bricks, buses, and budgets. Such restructuring did not do much to improve the quality of students’ experience.¹⁴³ Now districts and their leaders have re-emerged, thanks in part to responsibilities assigned to them by legislators. The federal No Child Left Behind Act, for example, extends accountability for student learning beyond the school house to the organizations that, in all states, continue to make crucial decisions about the use of resources for school improvement. The Act also specifies new roles for school districts in reform activity.

In Part Two, our investigation of leadership and student achievement examines in further detail certain characteristics of school districts (some previously identified—see Section 2.3; others introduced here) as they shape the role districts play in initiatives aimed at change. We also examine how these characteristics interact to yield productive consequences for students.

In prior research we found some support for bolstering the role of school districts in reform activity; we also found that the research base for many confident assertions about that role was relatively thin, consisting primarily of outlier case studies and examinations of larger data bases that are not representative of U.S. districts as a whole. In particular, prior research fails to provide consistent evidence that links district actions to student learning. Given the central role school districts play in American education, this is a serious gap. Taking note of it, we made the link between district action and student learning a main focus. Our design focuses on providing evidence, direct or indirect, about the effects of district policies and practices on schools, classrooms, and student learning.

¹⁴³ (Borman et al., 2003).

Section 2.1 extends the analysis of collective leadership presented in Section 1.1 to include district efforts to involve community members and parents. Sections 2.2 and 2.3 also build on earlier sections, examining ways in which districts contribute to the development of individual and collective efficacy, which we show to be important predictors of student achievement. In section 2.4, we move to a topic that has rarely been examined, looking at principal turnover and its effects on teachers and students. In section 2.5 we examine ways in which districts use data to improve student learning. In section 2.6 we examine district policies and practices as they foster or do not foster improvement in curriculum and instructional programs across districts and within the individual schools.

Although we will take up the question of how our findings can be translated into recommendations for policy and practice in subsequent sections, we can state our overall finding here: School districts matter. District policies and practices affect student achievement. Our elaboration follows.

2.1 How Districts Harness Family and Community Energy for School Improvement

Key Findings

- Districts promote participatory democratic structures in schools by creating policies and expectations for participation on the part of a wide array of people and groups outside of the school.
- Districts have more difficulty creating leadership teams that include diverse families and community members in more, as compared with less, affluent communities.
- Outside of establishing traditional site-council structures, Districts typically do not have a strong impact on principals' openness to community and parental involvement.
- Schools with more community stakeholders on their site councils or building leadership teams tend to have principals who are more open to community-level involvement.
- Student achievement does not seem to be influenced positively by principals' openness to community involvement.
- Student achievement is higher in schools where teachers share leadership and where they perceive greater involvement by parents.

Introduction

The review of research we cite in the Preface to Part Two makes no mention of district efforts to engage families and the broader community more fully in school improvement work. Yet family and community engagement has been an active research area for many years. Considerable evidence links family background to student achievement—a sufficient warrant for attention in its own right. Our interest, however, arises also from democratic assumptions underlying the organization of the U.S. school system and from the traditional resistance of schools to greater community-level participation. In light of this background, we examine five questions about family and community engagement:

- What influences the diversity of membership on school-site councils or leadership teams?

- What factors influence principals’ openness to parental and community involvement?
- Is a principal’s openness to community involvement related to student learning?
- How are participatory and collective leadership structures related to student learning?
- Which district policies and practices foster or inhibit family and community engagement aimed at increasing student learning?

Prior Research

Five strands of prior evidence informed our approach to this research: (1) evidence linking family engagement with student learning, (2) studies of recent efforts to create more democratic or participatory structures in schools, (3) studies of changing power structures in schools, (4) evidence about collective leadership, with a particular emphasis on the inclusion of people not in designated or positional leadership roles, and (5) studies about district and school characteristics that may support or inhibit family and community participation.

Family Engagement and Student Learning

Findings from two meta-analyses by Jeynes (2003 and 2007) add credible arguments for the case of family involvement leading to increased student achievement. The first (Jeynes 2003) concluded that family involvement affected academic achievement for the minority groups under study, but in different ways. For African Americans, effect sizes were positive for parenting style and for family attendance at various school events, but those variables were not statistically significant for other groups. The second (Jeynes 2007), focusing exclusively on studies of urban secondary school students, found that family involvement had a significant effect on student achievement for minority and white students.

“Subtle” aspects of family involvement—parenting style and parental expectations, for example—may have a greater impact on student achievement than more “concrete” forms such as attendance at school conferences or enforcing rules at home regarding homework.¹⁴⁴ Some researchers, policy makers, and practitioners argue that these subtle forms of family involvement are not easily influenced by schools.¹⁴⁵ In contrast, we argue that the value of creating participatory structures in schools lies in its potential for increasing family and community members’ sense of engagement in

¹⁴⁴ Fan (2001); Feuerstein (2000); Jeynes (2007); Lee & Bowen (2006); Sanders (1998); and Sheldon (2003).

¹⁴⁵ Other factors affecting family involvement in schools include race, SES, family size, parent self-efficacy, geographic location of school, educational attainment of parents, and grade level of child. See Bandura (1996); Crispeels & Rivero (2001); Epstein & Dauber (1991); Fan (2001); Feuerstein (2000); Grolnick et al. (1997); Hoover-Dempsey et al. (1995); and Lee & Bowen (2006).

children's education, and, as a consequence, augment and reinforce the subtle behaviors responsible for improved outcomes.¹⁴⁶

Creating Participatory or Democratic Structures

In the last two decades, some educators and community members have shown an interest in creating more democratic structures within and alongside schools—by establishing and using various advisory councils, for example. This movement may be a reaction against a longstanding school climate within which families and community members—some more than others—have been viewed as outsiders, not as true members of the school community. In this movement, some researchers saw democracy in action as power devolved from the state to local schools, sometimes culminating in outside stakeholder involvement.¹⁴⁷ Many contentions about site-based management, community control of schools, community schools, and school choice were based on democratic and communitarian theory.¹⁴⁸ Some researchers and policy makers influenced by economic theory have begun to view the relationship between schools and communities differently. Families and community members are clients or customers, not outsiders, according to this point of view, and schools should be accountable to their clients (see Riley & Louis, 2004, p. 9). Other observers remain suspicious of the community-as-client view, for various reasons. A school that is accountable to the community, in our view, reflects local values and customs, has indicators of success that are visible and well-communicated to the public, and allows parents to choose schools if they are not satisfied with the service.¹⁴⁹

Changing Power Structures in Schools

Site-based management initiatives rarely challenge existing power structures or alter decision-making patterns in schools.¹⁵⁰ Instead, these initiatives work to incorporate outsiders into the school's frame of reference.¹⁵¹ ¹⁵² Even where family and community involvement programs have been mandated, observers have questioned the fidelity of implementation efforts to mandated plans. Since it is easier for traditional power structures to remain in place when environmental factors remain “stable and congenial,”¹⁵³ giving parents and teachers authority to make some school decisions may in some respects reinforce the status quo.¹⁵⁴

In an examination of the contested nature of schools in a pluralistic society, Abrams (2002) found that “school interventions seeking to change established practices and ideologies concerning parental involvement can become contested terrain, . . . exposing competing needs and concerns about children's education” (p. 384). However,

¹⁴⁶ Sheldon (2005).

¹⁴⁷ Anderson (1998, 1999); Schuller et al. (2000).

¹⁴⁸ Anderson (1998, 1999); Crowson & Boyd (2001); Driscoll (1998); Keith (1999); Lee et al. (1993); and Riley & Louis (2004).

¹⁴⁹ Anderson (1998, 1999); Mawhinney (2004); and Riley & Louis (2004).

¹⁵⁰ Hess (1999); Malen (1994, 1999); and Malen & Ogawa (1988).

¹⁵¹ Anderson (1998).

¹⁵² This finding is challenged by some European studies, e.g., Møller (2006).

¹⁵³ Malen & Ogawa (1988, p. 265).

¹⁵⁴ Hess (1999); Malen (1994, 1999); Malen & Ogawa (1988); and Tschannen-Moran (2001).

Abrams also suggests that schools can bring competing groups together by developing collaborative structures and involving families in shared decision making, thus building social capital. The model of community development as a mechanism to link schools and communities is a facet of social capital theory; its importance in education policy and research has increased in the last fifteen years.¹⁵⁵

About participatory structures and efforts to develop them, there is often a wide gap between rhetoric and practice. Cognizant of this gap, several scholars have investigated factors that actually make a difference in these efforts. For example, Miretzky argues that fostering communication between teachers and families can help to create a democratic community and support school improvement. While the parents and teachers Miretzky studied did not espouse the value of democratic communities per se, the values they did espouse—investment in the school community, direct and honest communication, trust, mutual respect and mutual goals—“all reflect the ‘communication requirements’ of such communities” (2004, p. 814). According to this view, some teachers and parents desire interaction within a democratic community, but they lack the language necessary to articulate that interest.

Collective Leadership

As we explain in section 1.1, *collective leadership* refers to influence exercised by school leaders *and* families and other stakeholders. The political argument for involving parents and other community members more substantially carries along with it an explicit challenge to the traditional, hierarchical leadership and power structures in schools.¹⁵⁶ According to Leithwood and Prestine (2002), the policies and reforms that call for decentralized decision making rest on certain important assumptions about the role of the principal and other school leaders. The community-control model of site-based management “assumes that the school leader’s role is to ‘empower’ these people and to actively encourage the sharing of power formerly exercised by the principal. ...School leaders, it is assumed, will act as members of teams rather than sole decision-makers, teaching others how to make defensible decisions and clarifying their decision responsibilities” (p. 46). In this respect, strong leadership will be needed, somewhat paradoxically, to help establish collaborative partnerships and to foster shared decision making.¹⁵⁷ The beneficial outcomes, Leithwood and Pristine argue, will include better decisions and, among participants, an enhanced sense of ownership in and responsibility for the outcomes of those decisions.

District and School Characteristics That Support or Inhibit family and Community Participation

While principals play a crucial role in school-improvement initiatives, the school culture or climate is also crucial. Important characteristics of school culture include a caring atmosphere, significant family volunteering, and a supportive environment for teachers’ work.¹⁵⁸ Widespread trust among participants promotes collaboration within

¹⁵⁵ Mawhinney (2004).

¹⁵⁶ Anderson (1999) ; Keith (1999).

¹⁵⁷ Goldring & Sims (2005); Leithwood, Jantzi & Steinbach (1999).

¹⁵⁸ Bauch & Goldring (2000).

schools and communities.¹⁵⁹ Parental involvement benefits students, particularly; it also seems to benefit families, enhancing their attitudes about themselves, their children's schools, and school staff members.¹⁶⁰

Some principals and teachers assume that low levels of parental involvement reflect low levels of interest in the education of the children in question. The evidence does not support this view. Parents generally—inner-city and low-income parents as well as others—care deeply about their children's education.¹⁶¹ Their level of interest is not always readily apparent. Some may not know how to be involved helpfully in their children's education.¹⁶² Others may feel constrained by reticence arising from an inhibiting sense of class differences. For reasons like these, educators face a special challenge in seeking to foster increased family involvement. The policies and programs currently targeted to that task are, in many districts, inadequate.¹⁶³

New Evidence¹⁶⁴

Method

We obtained data for this section from responses to the first round of principal and teacher surveys and from state-mandated measures of students' achievement in mathematics. Also, in order to compose three district-level vignettes, we analyzed data from interviews we conducted over three years with district and school staff members and community stakeholders. The surveys posed questions about principals' and teachers' perceptions of parental and community involvement in schools; they also asked about stakeholders' influence in schools, the composition of leadership teams, and principals' and teachers' perceptions of parent and community openness to and involvement in promoting student learning. A total of 260 administrators returned the principals' surveys (157 principals and 103 vice principals), for a response rate of 74.2%. Sixty-seven percent of teachers completed their surveys (a total of 4,491). The present analysis, however, focuses only on the principals' responses (n=157).

For all survey items we used a six-point response scale (from *strongly agree* to *strongly disagree*). We calculated separate scales for each survey (all met conventional standards of reliability); then we used step-wise regression to analyze the principals' and teachers' surveys separately. Factors measured by the principals' survey included the following:

¹⁵⁹ Tschannen-Moran (2001).

¹⁶⁰ Smrekar & Cohen-Vogal (2001).

¹⁶¹ Patrikakou et al. (1998).

¹⁶² Epstein & Dauber (1991).

¹⁶³ Kruse & Louis (in press).

¹⁶⁴ A full report of this study is available in Gordon & Louis (in press). Linking parent and community involvement with student achievement: Comparing principal and teacher perceptions of stakeholder influence. *American Journal of Education*.

- *Principals' openness to community involvement.* All the items in this scale reflected our concept of *participatory democratic structures*—i.e., community members are actively engaged in planning and setting school-improvement goals.
- *District support for community and parent involvement.* This scale measured the role of the district in helping or hindering principals in their efforts to obtain greater community and parental involvement.
- *Principals' perceptions of parental influence.* This scale measured and the extent to which parents were involved in decision making and the perceived level of influence parents exercised in setting directions for school-improvement efforts.

We first examined elected versus non-elected site councils in order to distinguish between those that reflected democratic participatory structures and those that did not. (Although some schools refer to their site councils as “building leadership teams”, for purposes of clarity, we will use the term “site council” to refer to all such groups of people who participate together to provide guidance and occasional decisions as a means of local leadership at the building level.) We focused on formally elected school site councils that were diverse (i.e., more than three groups of people represented on the teams, meaning those that included parents and community members). Forty-three percent of the teams were elected, and elected teams were more diverse than non-elected teams.

For the first analysis of data from the principal survey, our outcome variables included (1) the diversity of membership on school-site councils, and (2) the level of principals' and teachers' openness to community and parental involvement in schools. For the analysis from the teacher survey, four variables were measured:

- *Parent/teacher collective leadership.* In schools demonstrating collective leadership, principals and teachers are more likely to collaborate with parents and the community.¹⁶⁵
- *District and school leadership influence.* Using this variable we measured the degree to which administrators, at the school and district level, retained control over decision making.
- *Teachers' perceptions of parental influence.* Using this variable we explored the relationship between teachers' perceptions of parental influence and student learning outcomes.
- *Teacher influence:* Using this variable we distinguished between the influence of parents, administrators, and teachers in school decisions.

¹⁶⁵ E.g., Goldring & Sims (2005) ; Tschannen-Moran & Hoy (2000).

We measured student achievement by reference to the school’s performance on the 2005-2006 state tests in mathematics. We used poverty (the number of students receiving free or reduced-price lunches) and type of school (elementary and secondary) as control variables for all of our analyses because several studies examining community involvement specifically found them to be significant influences on parental involvement in schools. SES is also a significant factor in predicting student achievement.¹⁶⁶

Influences on the Diversity of School-Site Councils

In our first analysis we examined variables associated with the diversity of membership on school-site councils. We sought to determine which district and school leadership factors were associated with diversity. Using *diversity of membership on the site council* as a dependent variable, we used linear regression to examine the relationship between diversity and *district support for community involvement*, controlling for poverty level.

Table 2.1.1
Factors Associated with Diversity of Membership on School-Site Councils
(N=157)

Predictors	Standardized Coefficients	t	Sig	R ²	Adjusted R ²
(Constant)		3.648	.000		
Percent of Free or Reduced-Price Lunch Students	.260	2.656	.009		
District Support	.227	2.324	.022		
F = 5.092				.092	.074

* Significant at the .05 level

Results show that poverty level and district support for community involvement explain only 9% of the variance in the diversity of membership on school-site councils. Nevertheless, diversity of membership on site councils is fostered by district support for community participation and we found high-poverty schools are more often diverse in site-council membership than other schools are.

Influences on Principals’ Openness to Parent and Community Involvement

In our second analysis, we examined which factors associated with principals’ openness to community involvement. With *principals’ openness* as our dependent variable, we used step-wise regression to assess the degree to which our independent variables (*district support, site council diversity*) accounted for variance in our dependent variable. Again, we used free and reduced-price lunch (FRPL) and school level as controlling variables.

¹⁶⁶ Henderson & Mapp (2002); Ho Sui-Chu & Willms (1996).

Table 2.1.2
Factors Associated with Principals' Openness to Community Involvement
(N=157)

Predictors	Standardized Coefficients	t	Sig	R ²	Adjusted R ²
1 (Constant)		16.073	.000		
Percent of Free or Reduced-Price Lunch Students	.027	.274	.785		
F = .075				.001	-.009
2 (Constant)		2.130	.036		
Percent of Free or Reduced-Price Lunch Students	.017	.172	.864		
District Support	.169	1.673	.097		
Site Council Diversity	.230	2.292	.024		
F change = 5.159*				.095	.068
3 (Constant)		1.661	.1000		
Percent of Free or Reduced-Price Lunch Students	.025	.224	.808		
District Support	.171	1.684	.095		
Site Council Diversity	.231	2.289	.024		
Elementary or Secondary School	.035	.352	.726		
F change = .124				.096	.059

* Significant at the .05 level

Our results yielded four findings. First, poverty level does not influence principals' openness to community involvement. Second, *site council diversity* is the only statistically significant variable associated with principals' openness to community involvement; it accounts, however, for only about 9% of the variance. Third, *district support* is not significantly related to community involvement, and it has only a limited influence on principals' openness to community involvement. Fourth, *school level* is not associated with principals' openness to community involvement.

Factors Related to Student Achievement

Using data from surveys of principals, we examined factors related to student achievement in mathematics. In these analyses we used *site council diversity*, *district support*, and *principals' openness to community involvement* as independent variables; again, we used poverty and school level as control variables.

Table 2.1.3
Principal Survey:
Factors Associated with 2005-2006 Student Achievement Scores in Math at the Building
Level
(N=157)

Predictors	Standardized Coefficients	t	Sig	R ²	Adjusted R ²
1 (Constant)		17.617	.000		
Percent of Free or Reduced-Price Lunch Students	-.416	-4.413	.000		
F = 19.471**				.173	.164
2 (Constant)		5.196	.000		
Percent of Free or Reduced-Price Lunch Students	-.405	-4.009	.000		
Site Council Diversity	.087	.856	.394		
District Support	.096	.970	.335		
Principals' Openness to Community Involvement	-.180	-1.836	.070		
F change = 1.419				.210	.175
3 (Constant)		5.973	.000		
Percent of Free or Reduced-Price Lunch Students	-.496	-4.784	.000		
Site Council Diversity	.099	1.004	.318		
District Support	.078	.811	.419		
Principals' Openness to Community Involvement	-.159	-1.662	.100		
Elementary or Secondary School	-.255	-2.649	.010		
F change = 7.018*				.268	.227

* Significant at the .05 level

**Significant at the .001 level

Our results show that poverty level accounts for 17% of the variance in student achievement in mathematics. With leadership variables factored in, we find that *site council diversity, district support, and principals' openness to community involvement* do not relate significantly to student achievement.

In short, even if principals are open to community involvement and establish diverse school site councils, no significant effect on achievement will necessarily follow, over and above the effect of contextual factors (poverty and school level). This finding is consistent with results from prior research: simply changing structures, or being open to involvement, does not necessarily lead to increased student learning.

Participatory and Collective School Leadership Structures and Student Learning

Using data from surveys of teachers, we analyzed the relationship of *Parent/teacher collective leadership, district/school leadership influence, and teachers' perceptions of parental involvement* with student achievement in mathematics. Again, we used poverty and school level as control variables.

Our results show that poverty level had a statistically significant inverse relationship with achievement in mathematics, accounting for 21% of the variance. With participatory and shared leadership variables factored in, we found that *parent/teacher collective leadership* and *teacher's perceptions of parental influence* were positively and significantly associated with achievement in mathematics, accounting for 23% of the variance. This finding is consistent with findings from prior research. If teachers have more influence in decision making and practice shared leadership, they believe parents are also more likely to have influence and be involved actively in school improvement efforts.¹⁶⁷ Since other research has confirmed this relationship, we kept both constructs in the remaining analyses.

Finally, while *school level* had a significant, inverse relationship with student achievement in mathematics, *district/school leadership* and *teacher influence* were not significantly related to achievement. These findings are consistent with findings from prior research on site-based management¹⁶⁸ which found that even when schools are charged with creating collective leadership and asked to be more inclusive with parents and community members, principals and teachers, nevertheless, maintain decision-making control.

Our results show that where teachers' perceive greater involvement by parents, and where teachers indicate that they practice shared leadership, student achievement is higher. The relationships here are correlational, not causal; nevertheless, it appears that direct, active involvement by parents (as perceived by teachers) can have an impact on student learning. Although Feuerstein's (2000) research indicates that schools have less influence over "subtle" forms of parent involvement, we found that teachers and principals have more influence on parental and community involvement, and its link to student learning, than others have thought. Because parental involvement is linked to student achievement by correlation, we assert that teachers and principals can play a role in increasing student learning by creating a culture of shared leadership and responsibility—not merely among school staff members, but collectively within the wider community.

¹⁶⁷ Tschannen-Moran (2001).

¹⁶⁸ Hess (1999); Malen (1994, 1999); Malen & Ogawa (1988).

Table 2.14
Teacher Survey:
Factors Associated with 2005-2006 Student Achievement Scores at the Building Level
(N=4,491)

Predictors	Standardized Coefficients	t	Sig	R ²	Adjusted R ²
1 (Constant)		117.657	.000		
Percent of Free or Reduced-Price Lunch Students	-.458	-29.331	.000		
F = 860.303**				.209	.209
2 (Constant)		21.916	.000		
Percent of Free or Reduced-Price Lunch Students	-.450	-28.950	.000		
Parent/Teacher Shared Leadership	.097	5.468	.000		
District/School Leadership	.004	.269	.788		
Teacher Influence	.020	1.059	.290		
Teachers' Perceptions of Parental Involvement	.058	3.276	.001		
F change = 20.771**				.229	.228
3 (Constant)		28.190	.000		
Percent of Free or Reduced-Price Lunch Students	-.544	-34.111	.000		
Parent/Teacher Shared Leadership	.054	3.159	.002		
District/School Leadership	.011	.683	.494		
Teacher Influence	.021	1.153	.249		
Teachers' Perceptions of Parental Involvement	.043	2.530	.011		
Elementary or Secondary School	-.268	-16.672	.000		
F change = 277.955**				.290	.289

**Significant at the .001 level

On first glance, some of our results appear to be at odds with others. Principal's reports of their efforts to promote community involvement are not related to student achievement, but reports about parental involvement by teachers located in the same schools suggest a significant influence. One explanation may be that principals are simply poor reporters of their own behavior. They may inflate their reports, given the assumption that *they are supposed to* work on promoting community involvement. Teachers, in contrast, were asked to report on the indirect results of their principal's efforts and the school culture in general, not on their own behavior; in their task, they may have been more forthright.

Response bias, however, is not the only possible explanation. It could also be the case that where teachers experience shared decision making, they feel more

“empowered” as Leithwood and Prestine (2002) have suggested, and are therefore more willing to engage parents as participants in their children’s education. In addition, teachers who feel empowered may be more willing to accept parental and community input in setting directions for school-improvement programs. In other words, a more professionalized and influential group of teachers may seek to increase the resources available to improve student achievement (including parental involvement and influence). This possibility stands in contrast to an assumption made by some critics of professionalism—i.e., that professionalized teachers will tend to claim exclusive knowledge and expertise. If it is the case that professionalized teachers are more likely to seek parental and community involvement, then the dynamic in education resembles a current movement within the medical profession, where many practitioners now seek to involve patients as partners in making complex decisions about health care.

Still another explanation is that teachers might focus on the *consequences* of principals’ efforts to promote community involvement, rather than the structural components intended to provide for community involvement. This explanation could account for the unexpected finding that our initial factor analysis produced a variable that includes measures of both parental and teacher influence within the school. By itself, this finding suggests that principals, who have a great deal of influence over school culture, may exercise a subtle and indirect influence on student achievement insofar as they increase openness and make schools more democratic. This possibility is compatible with the assumption that it is not the structures that make a school democratic, but the everyday actions that encourage or discourage the flow of ideas and influence across institutional boundaries.

The District’s Role

The results of our quantitative analyses suggest that districts can play a role in promoting participatory democratic structures in schools by creating policies and expectations for participation by a wide array of peoples and groups. In addition, districts can help schools create diverse school-site councils, at least in more affluent communities. In examining the factors influence principals’ openness to community and parental involvement, we found that although district support for more involvement does correlate with the diversity of membership on site councils, districts do not have a strong impact on how principals’ openness to community and parental engagement outside the traditional site councils. This finding suggests that districts are not creating the climate or expectation for schools to be open to community and parental involvement. The district role has been primarily to create policies that demand a certain level of outside participation in decision making. But these policies have only a weak and indirect effect on creating open, participatory environments in schools.

However, when schools have more diverse representation on site councils, principals appear to be more open to community involvement. This finding is not surprising; it suggests that in schools where parents and other community members hold significant leadership roles, principals are more open generally to outside influences. Our

findings are also consistent with research that says leaders can and often do play a significant role in the level of parent and community involvement in schools.¹⁶⁹

Overall, two generalizations stand out regarding district leadership aimed at fostering democratic participation in schools. First, district policy—e.g., setting expectations for who should be involved in making decisions—does influence the range of people who participate in school decisions. Second, district culture appears to have a limited influence on parental and community involvement at the school level.

Although district efforts to encourage widespread involvement have limited effects at the school level, and formal participation by parents and community members has limited impact on the achievement of students in the school, it does not follow that these policies should be abandoned. They may have symbolic value, creating effects that we have not measured. Our study does hint that as principals have more experience with community interaction (for example, through site councils with diverse representation), they become more open to influence in daily practices in their buildings.

Case Vignettes:
District Policies and Practices for Parent and Community Involvement
(all district and persons' names are pseudonyms)

In order to examine our quantitative findings more thoroughly, we turned to our qualitative data for an in-depth look at district level policies and practices intended to engage parents and community members in school-improvement efforts and, specifically, efforts to increase student learning. In exploring our qualitative data, we examined district policies and practices that may foster or inhibit parental and community engagement aimed at increasing student learning. From this examination we have developed the following vignettes to illustrate what three school districts are doing to foster parental and community engagement. The three districts are located in different states and regions of the country. They range in size from 25,000 to 38,000 students, from 22% to 42% minority students, and from 33% to 42% of students who qualify for free or reduced-price lunches.

Glenhurst School District: A Commitment to Being Visible and Listening to Community Concerns. Glenhurst School District, located in a western state, is composed of 47 schools with a total enrollment of approximately 38,000 students. These students are about 42% minority and 33% free or reduced-price lunch students. When the current superintendent, Brad Cameron, was hired in 2003, he exhibited openness to hearing from all groups and a willingness to collaborate in pursuit of his primary goal: to increase student achievement in reading and mathematics. One administrator described the culture of the district as “engaged,” “lively,” but “a little chaotic,” in a good way. Superintendent Cameron worked to change the culture of the district. For example, several district-level administrators in Glenhurst said that the district went through a lengthy process of

¹⁶⁹ Anderson (1998); Goldring & Sims (2005); Leithwood, Jantzi, & Steinbach (1999); and Opfer & Denmark (2001).

“sense-making” and self-organizing, focused on district goals and emphasizing community outreach. With these efforts, the culture of the district changed, according to the Board Chair, because of Superintendent Cameron’s collaborative style, visibility, and ability to communicate with the public.

Superintendent Cameron communicates his primary goal by being visible *in* the schools, where he holds regular, open talks on leadership, and *outside* the schools, where he meets regularly with various community groups to discuss district directions and to gather public input. His style is to develop and sustain strong relationships, build capacity, and maintain organizational transparency. Toward these ends, the district holds meetings with “Key Communicators” every two months. These meetings are attended by an range of participants including business leaders, retired district employees, other retired citizens, past superintendents, and a small group of parents. During the meetings, district leaders bring up current issues and gather input and advice. In addition, superintendent meets regularly with a community clergy group and with different ethnic groups of parents every month.

Along with other district leaders, Superintendent Cameron also holds “listening sessions” in the community once every month. The meetings are held in different parts of the district and are open to anyone who wishes to attend. The superintendent has stated that listening sessions are not a venue for formal presentations by the district to the public; instead, the sessions provide an opportunity for district representatives to hear about issues and concerns from the community. In addition, during the summer, the superintendent and some of his staff visit local businesses during the lunch hour to have “listening sessions” with business people and workers. According to the superintendent, these communication efforts have been essential in building relationships and trust within the district. Superintendent Cameron receives several e-mails from parents and other community members every day and commits himself to a 24-hour turn-around policy. He states that this turn-around time has been essential to keeping up the flow of communication.

The Glenhurst district has three mandated, formal governance structures designed to include outside stakeholders in decision making. These are the elected Local School Committees (LSCs), elected Site Councils, and Parent Teacher Organizations (PTOs). Superintendent Cameron meets with the LSCs approximately every two months to talk about their work and to listen to their concerns. The Site Councils are made up of teachers and other community members, 50% each. The superintendent meets with all members of the Site Councils quarterly to listen to their ideas and concerns, and they update him on their school-improvement plans. Every school in the district is mandated to have a PTO) designed to include parents in school operations. Actual influence of the PTOs varies tremendously by school, depending on the leadership styles of the respective principals.

According to the Assistant Superintendent, the district has goals that are communicated to the public, but it has no formal policies to ensure involvement of outside stakeholders in decision making at the district level, beyond formal governance

structures. However, the district has several informal means of involving the community in school-improvement efforts. For example, community members and parents were invited to weigh in on curricular-adoption processes at the district level. In addition, the district website often features postings seeking parental and community input on district programs, planning, goals, and visions.

Although the district actively seeks input, district officials do not always know what to do when community members come forward with input. One sort of example arises when like-minded parents band together if they do not like something, bombarding district offices with phone calls and e-mails and testifying at board meetings. This kind of community engagement can be intense and narrowly focused, the Assistant Superintendent has stated, and it sometimes slows processes down, but she believes that the voices of parents, happy and unhappy, need to be heard and taken into account. The school board vice chair, similarly, has stated that allowing all voices to be heard is valued by the district. “You have to maintain a democratic public education system,” he said; “you have to have the public involved.” In these various consultations, there is a group of parents and community members—white and relatively affluent—deemed very influential by district staff members. District officials struggle with the task of attracting a representative group of community members to help with school improvement efforts.

Atlas School District: A Focus on Communication, Transparency, and Partnering. The Atlas school district, located in a Midwestern university town, has 52 schools that serve approximately 34,000 students—22% minority and 38% of receiving free or reduced-price lunches. The district states that it has four primary goals: (1) to increase student achievement and graduation rates, (2) to provide enough classrooms and other learning environments to support achievement, (3) to increase stakeholder involvement for increasing achievement, and (4) to increase communication with outside stakeholders, while emphasizing student achievement. Prior to the tenure of the current superintendent, Michelle Sorenson, who came into office in 2005, the previous superintendent held the job for more than 10 years. That superintendent was not skilled in engaging with the community. Because there were complaints from community groups about the old superintendent, the school board engaged the community in helping to pick the new superintendent. Board members said that they looked for and hired an “avid communicator.” When Superintendent Sorenson came on board, she made it a priority to get out into the community, repair relationships with stakeholders, build trust, and restore the reputation of the district.

An executive vice president of a local children’s foundation stated that the district has improved since Superintendent Sorenson came on board—in openness and in soliciting community input for discussions of how the district operates. For example, the superintendent focused on being visible by giving approximately 80 presentations to community organizations in the first year she took office. She spoke to civic and business groups, attending Rotary lunches and meeting with other community agencies. Increased visibility has led to increased trust between the district and various community groups and parents, according to district representatives and community stakeholders. In order to build relationships, gain trust, and communicate the needs of the district, the

Superintendent engaged as many stakeholders as possible. For example, the district recruited approximately 60 people from various community groups and parents to lobby for a bond measure. The bond measure passed because of the district's renewed commitment to the community.

Superintendent Sorenson says it is important for her leadership to maintain transparency in proceedings at the district level, and to communicate continually with the public. The district also brings people in on important district-level initiatives so that stakeholders feel part of the process. For example, the district established a Community Curriculum Council that meets monthly; its membership includes up to two parent representatives per school. Approximately 30 parents attend these meetings. As one parent explained, the Curriculum Council provides an opportunity for parents to meet with other parents, to discuss district issues related to curriculum and other important topics. According to another parent, the official role of the council is “to advise the curriculum department on parents’ views on different curriculum issues as well as to be educated by the curriculum department on what is going on with the curriculum.” The district’s mission and goals are well known inside the organization and within the community. Annually, the district prepares and distributes a report to all Atlas residents that includes information such as test scores, results of follow-up studies from graduates, assessment results about the learning climate, financial information, and school demographic characteristics.

In Atlas (as was also the case in Glenhurst), principals determine in large measure whether or not PTOs will operate as effective entities. Although PTOs are not mandated, there is a district policy encouraging each school to have a PTO. The school board encourages schools with PTOs to focus on developing and maintaining volunteer programs. Also, the district also does not mandate that each school must have a site council. Against this background, the district struggles, as Glenhurst does, to engage parents from diverse backgrounds. Atlas parents who serve on the Community Curriculum Council, join PTOs, or serve on site councils tend to be relatively affluent and white.

Atlas district officials emphasize partnering with community organizations. For example, parents and other stakeholders report that the superintendent has focusing increasingly on connecting with the business community. The district created a partnership program with businesses called the “Ventures in Partnership” program. It is designed to get students involved in businesses, and to get businesses involved in the schools in a more formal way. Activities include tours of businesses, business representatives speaking in the classroom, and businesses giving gifts to students who do well academically. The district also partners with the local university—e.g., through joint projects such as an entrepreneur-focus program and math and science grants. The Superintendent meets on a regular basis with the Dean of the College of Education and with key staff members to talk about possibilities for collaboration. For example, the district’s Director of Evaluation helped a team of university people put together an assessment training program for experienced teachers. He also helps design teacher education curriculum and teaches certain college courses. And the district partners with a

local children's foundation that works with homeless students. Foundation staffer members work actively with Atlas school counselors and social workers; they also serve on Atlas truancy committees.

The Atlas district also partners with community organizations to operate independent community learning centers that are housed in Atlas schools. The learning centers offer two kinds of service. They provide tutoring and other forms of academic assistance, and they provide affordable before- and after-school care facilities. The district has approximately 19 community learning centers; each one is tailored to the needs of the community it serves. For example, parents from a neighborhood advisory group for one Atlas school volunteer in a learning center to tutor or oversee activities. Two community liaison staffers work with the Atlas district office to engage businesses and other community partners (such as Family Services, Parks and Recreation, and the YMCA) to sponsor or act as a lead agency in community learning centers throughout the city.

North White Pine County School System: An Emphasis on Creating Community Buy-In and Partnering. North White Pine County School System, located in a Southern state, has 35 schools with approximately 25,000 students—39% minority and about 42% students on free and reduced-price lunches. Because the district is located near a military base, it continually faces high student- and teacher-turnover. A large factory in the community employs many of the parents whose children attend schools in the district. Because of parent work schedules, the district partnered with community 4H and extension services to provide affordable before- and after-school care programs. The district's primary goal is to ensure that every student is successful in school and goes on to become a productive member of the community. In general, the district accommodates the demands and challenges of being in a community with a high mobility rate and difficult work schedules for parents. Also, because the district has been labeled as "low wealth," the superintendents and other district level leaders often turn to the community to find ways to meet state mandates.

Leadership in the North White Pine County district has been unusually stable compared to other districts in the state, and around the country. Superintendent Samuelson, who retired after the 2006-2007 school year, served the district for 16 years, and the superintendent before him served for 19 years. Because district leadership has remained stable for so long, the staff has been able to work through issues and challenges in a very systematic way, especially with the community. When Superintendent Samuelson retired, along with three other district-level leaders, a new superintendent, Sheila Wauters, took over the district. Superintendent Wauters was brought up through the North White Pine County ranks; she was already a part of the district when she took office.

In the North White Pine County district, parents and community members can get involved with the schools, formally, in three ways (apart from getting elected to the school board). First, they may participate in school-level advisory councils or school-improvement teams. Every school-improvement team must have 50% parent

representation. Second, they may serve as representatives on the district-wide advisory council. Third, they may serve as members of PTOs (the district encourages schools but does not require them to have PTOs).

Although the district encourages community members to get involved, participation and influence by community members varies from school to school. Each principal is allowed to run his or her school, and the district only gets involved in school operations only when there is a problem. For example, the district intervened when parents at one school complained the school's culture and claimed that a new administrative team was less responsive to them than previous administrators had been. The district worked with the new administration and parents to make sure that a strong relationship was built.

School board policy at North White Pine County states that the board has established its commitment to families and the community by creating and maintaining policies to provide for the transparency of public records, for having open board meetings, for allowing community groups to use school facilities, and for allowing visitors to have access to the schools. The district emphasizes the importance of partnering with community groups and agencies. District officials believe that their message about being child-centered and open to community input has helped with such things as the passing of bonds, including one that passed recently by a positive vote of more than 70%. The district has a Director of Community Affairs (DCA) whose job it is to foster civic participation and promote good citizenship among staff members and students, encouraging them to sit on community and business boards, to reach out to the public, and to attend board meetings.

The district conducts an annual climate survey—reaching parents, students, business people, faculty and staff members from local colleges, and other community partners including members of faith-based organizations—to learn what community people think about school and district programs and practices. In North White Pine County, the district coordinator of testing and evaluation said that reaching out to the community was “second nature” and “just the culture that we have.”

The district has a history of gaining buy-in prior to launching new programs, thus mitigating pressure of the sort that often arises in other districts. For example, prior to making decisions on redistricting, the superintendent, the DCA, and the person in charge of public relations took their ideas “on the road” to every neighborhood in the district that would be affected, asking the public for input. Going out to talk about a controversial topic is, in the words of the DCA, “not always fun,” but he adds that people in the community appreciate the chance to give input; they feel that they are valued by the district leaders.

Partnering with local community groups and with other county personnel has been a necessity for district leaders in North White Pine County because of its low-wealth status. The district networks and partners often with local universities and community college faculty and staff members to provide teacher training and certification. For

example, the district partnered with mathematics and science professors to create a program to improve teachers' knowledge and skills in mathematics and science. The district also works with community agencies. The Rotary Club sponsors leadership activities for North White Pines students; a local power company sponsors leadership training for principals and has given awards for academic achievement to teachers and students; the Chamber of Commerce provides leadership training for district leaders. Superintendent Wauters is also involved with the regional Association of Colleges and Schools and serves as the state specialist in the area of district accreditation.

The DCA manages and monitors most of the community partnerships for the district. The district has a 17-year-old business relationship program called BASES (Businesses Assisting Schools in Educating Students). BASES works to foster business involvement in the schools. Activities include participation in adopt-a-school programs, financing mini-grants, sponsoring scholarships, providing training for employees to help them help their children learn, donating equipment or materials, serving on school committees, sponsoring field trips, providing tutoring and mentoring, and participating in a joint Chamber of Commerce and schools initiative. Through programs of this sort, the district has been able to make valuable connections with local businesses; when issues such as levies and bonds arise, district staff members feel that they have allies in the business community. While BASES programs emphasize business donations of time and money to the schools, the district also stresses its contributions to the community. In 2005, for example, the school system was the largest contributor to the local chapter of the United Way, and all schools participate annually in the community fund-raiser for free cancer screenings.

Looking Across the Cases

The school districts described in the above three case vignettes have much in common: a district-wide commitment to listening to public concerns; serious effort given to communicating district policies and practices to the public; and a focus on collaborating and partnering with individuals and groups from the community, including business people. While the districts carry out these efforts in different ways, and to varying degrees of success, district leaders from all three clearly understand the relevance of engaging with the community and are open to input from the public. In addition, the governance structures outlined in the cases mirror certain findings from our quantitative studies. For example, all three districts encourage or mandate governance structures (site councils, building leadership teams, PTOs) aimed at ensuring community members' participation in district and school-level decision making. Our case analysis is consistent, therefore, with our prior finding that districts set the policies and expectations for who should serve on these entities. The cases also shed light on a problem: although these districts provide a range of formal structures for distributed leadership, all three struggle with the task of obtaining diverse representation from parents and other community members.

Our case analysis is also consistent with our quantitative finding that district culture has only a limited influence on community involvement at the school level. All three districts modeled community engagement, partnering, and a willingness to listen to

public concerns, and all made efforts to include families and communities in district-level committees. In all three cases, however, the district stopped short of making sure that principals modeled these same behaviors. One reason may be that the districts are committed to local control and a hands-off approach to day-to-day operations within schools. In each case, district leaders acknowledged that engagement with communities varies from school to school, depending upon the leadership styles of the principals. Leaders in all three districts were aware of research linking family involvement with increased student learning, but they did not believe it was their role to mandate engagement between schools, parents, and other community members. Reflecting on these cases, we note that district-level policies and structures are necessary to maintain communication and provide opportunities for engagement with parents and other community members. At the same time, we observe that establishing policies and providing structures will not ensure widespread, genuine participation. To gain the benefits of widespread participation, district leaders will need to do more. They will need to focus more sharply and energetically on collective leadership by engaging teachers, administrators, parents, and community members in ongoing, reflective discussions of what each party can and should contribute to students' learning.

Implications for Policy and Practice

Three implications for policy and practice emerged from this component of our study.

1. District leaders need to engage in dialogues with principals about what openness to community and parental involvement means in practice, beyond merely establishing policies and structures. Pertinent topics for such discussions would include the value of partnering with parents and community members in school-improvement efforts, parents as vital partners in the learning process, the importance of shared leadership, and the critical role that the community plays in every child's life.
2. Principals need to engage teachers and other staff members in similar discussions, focused especially on ways to involve parents in roles beyond the superficial tasks often allocated to them (e.g., coordinating social events, fundraising through bake sales). Many parents feel marginalized because they are given tasks that do not reflect the crucial role they could otherwise play in support of their children's education. Parent participation as tutors, mentors, or in other forms of classroom support are as vital as the roles they take on in site-council activities.
3. Districts should take an active role in teaching parents and other community members how to be involved in education. This effort should include providing informational and instructional sessions about shared governance. These discussions could help to create a sense of ownership among all staff parents, parents, and other community members, helping to increase student learning.

2.2

Principals' Efficacy: A Key to District Effects on Schools and Students

Key Findings

- Districts that help their principals feel more efficacious about their school improvement work have positive effects on school conditions and student learning.
- Principals who believe they are working collaboratively toward clear and common goals—with district personnel, other principals, and teachers in their schools—are more confident in their leadership.
- District size is a significant moderator of district effects on school-leader efficacy; the larger districts, the less the influence.
- School level also is a significant moderator of district effects on school-leader efficacy, with districts having larger effects on elementary than secondary school leaders.

Introduction

One of the most powerful ways in which districts influence teaching and learning is through the contribution they make to feelings of professional efficacy on the part of school principals. Evidence justifying this claim is provided by quantitative and qualitative studies. Principal efficacy provides a crucial link between district initiatives, school conditions, and student learning.

Our quantitative evidence was useful in addressing three issues:

- the extent to which district leadership and district conditions influenced principals' sense of efficacy for school improvement
- the influence of principal efficacy on: (a) principals' leadership practices, (b) learning conditions in their schools, and (c) student learning
- the extent to which personal and organizational characteristics moderate the influence of principals' efficacy on student learning.

Given the significant contribution that principal efficacy makes to school effectiveness, it is important to know what districts can do to build such efficacy. While our quantitative evidence provides a general response to this question, our qualitative evidence offers much more detailed answers.

Prior Evidence

Relevant theory. Efficacy is a belief about one's own ability (self-efficacy), or the ability of one's colleagues collectively (collective efficacy), to perform a task or achieve a goal. It is a belief about ability, not actual ability. Bandura, self-efficacy's most prominent theorist, claims that:

People make causal contributions to their own functioning through mechanisms of personal agency. Among the mechanisms of agency, none is more central or pervasive than peoples' beliefs about their capabilities to exercise control over their own level of functioning and over events that affect their lives (1997a, p. 118).

Most leader-efficacy studies have been influenced by Bandura's socio-psychological theory of self-efficacy (e.g., 1982, 1986, 1993, 1997a, 1997b). In addition to defining the meaning of *self-efficacy* and its several dimensions, this body of work identifies the effects of self-efficacy feelings on a leader's behavior, and the consequences of that behavior for others. This line of theory also specifies the direct antecedents of self-efficacy beliefs and the mechanisms through which such beliefs develop.

Efficacy beliefs, according to this theory, have directive effects on one's choice of activities and settings, and they can affect coping efforts once those activities are begun. Such beliefs determine how much effort people will expend and how long they will persist in the face of failure or difficulty. The stronger the feelings of efficacy, the longer the persistence. People who persist at subjectively threatening activities that are not actually threatening gain corrective experiences that further enhance their sense of efficacy. In sum, "Given appropriate skills and adequate incentives...efficacy expectations are a major determinant of peoples' choice of activities, how much effort they will expend and how long they will sustain effort in dealing with stressful situations (Bandura, 1997a, p.77).

Efficacy beliefs, according to Bandura (1993), develop in response to cognitive and affective processes. Among the cognitive mechanisms, and potentially relevant to our research, are perceptions about how controllable or alterable one's working environment is. These are perceptions about one's ability to influence, through effort and persistence, what goes on in the environment, as well as the malleability of the environment itself. Bandura (1993) reports evidence suggesting that those with low levels of belief in how controllable their environment is produce little change, even in highly malleable environments. Those with firm beliefs of this sort, through persistence and ingenuity, figure out ways of exercising some control, even in environments that pose challenges to change. This set of efficacy-influencing mechanisms may help to explain some results of our research on district conditions and initiatives that foster principal efficacy.

Self-efficacy beliefs also evolve in response to motivational and affective processes. These beliefs influence motivation in several ways: by determining (a) the

goals that people set for themselves,¹⁷⁰ (b) how much effort they expend how long they persevere in the face of obstacles, and (c) their resilience in the face of failure. Also, motivation relies on discrepancy reduction as well as discrepancy production. That is, people are motivated both to reduce the gap between perceived and desired performance and to set themselves challenging goals which they then work hard to accomplish. They mobilize their skills and effort to accomplish what they seek.¹⁷¹ Such beliefs, we surmise, also are likely to be influenced by some of the conditions that principals experience in their districts.

Previous research. Pointing to the similarity of efficacy and self-confidence, McCormick claims that leadership self-efficacy or confidence is likely the key cognitive variable regulating leader functioning in a dynamic environment. “Every major review of the leadership literature lists self-confidence as an essential characteristic for effective leadership” (2001, p. 23). That said, we know very little about the efficacy beliefs of leaders in particular,¹⁷² and even less about the antecedents of those beliefs. According to Chen & Bliese (2002), most organizational research has focused on the outcomes of efficacy beliefs, with much less attention to their antecedents. Pescosolido (2003) has argued, in addition, that the antecedents of leaders' self efficacy (LSE) and leaders' collective efficacy (LCE) may well differ. For example, district leadership practices and organizational conditions may predict collective efficacy more immediately than they predict self efficacy because leadership practices relate only indirectly to the more proximal antecedents of individual efficacy, such as role clarity and psychological states.¹⁷³

Prior evidence about the antecedents of both self- and collective-leader efficacy warrants several conclusions. First, no single antecedent has attracted much attention from researchers. Second, the most frequently studied antecedents—leader gender, leaders' years of experience, level of schooling, and compliance with policy or procedures—have not found much evidentiary support, by any conventional social science standard. Third, what evidence there is about the impact of various antecedents on leader efficacy suggests that results are either mixed or not significant. Finally, as far as we could determine, there has been very little effort to understand district influences on school-level leader efficacy.

New Evidence

Method¹⁷⁴

Instruments. The overall sampling strategy for our first round of surveys is described in the methodological appendix. Evidence for this sub-study was provided by responses to 58 items on the first round of teacher surveys and 58 items from the first

¹⁷⁰ E.g., Locke & Latham (1984).

¹⁷¹ Bandura (1993).

¹⁷² Chemers, Watson & May (2000); Gareis & Tschannen-Moran (2005).

¹⁷³ Zaccaro, Blair, Peterson, & Zazanis (1995).

¹⁷⁴ This sub-study is reported in more detail in Leithwood & Jantzi (2008).

round of principal surveys. Principal survey items measured LCE (4 items), LSE (6 items), district conditions (30 items), and district leadership (18 items). We measured three additional variables with the teacher survey: school leadership (20 items), class conditions (15 items), and school conditions (21 items). The distribution of variables to be measured across the two surveys is based on judgments about which respondents (teachers or administrators) were most likely to have the authentic information about each variable. This procedure also reduced the threat of same-source bias in our results.

Previous efforts to develop adequate measures of leader-efficacy beliefs have failed to produce instruments completely suitable for our purposes. Gareis and Tschannen-Moran (2004), for example, describe many of these previous efforts and report results of their research on the validity and reliability of:

- a promising, vignette-based measure of individual leader efficacy developed by Dimmock and Hattie (1996);
- a 22-item adaptation of a measure of collective teacher efficacy originally developed by Goddard et al. (2000b); and
- a 50-item adaptation of a measure of individual teacher efficacy (eventually reduced to 18 items) initially developed by Tschannen-Moran and Hoy (2000).

These authors reported disappointing results of their tests of the factor structures of the first two instruments, but the third measure proved to be more satisfactory in terms of its factor structure and its construct validity. Three factors emerged: self-efficacy for handling managerial aspects of the job, instructional leadership tasks, and moral leadership tasks.

Because we focused in our larger study on leaders' influence on student learning, we incorporated into our principal survey the six-item scale measuring feelings of self-efficacy about instructional leadership tasks. We interpreted these items to be measuring *efficacy for school improvement*. Beginning with the stem *To what extent do you feel able to*, the six items included the following:

1. Motivate teachers?
2. Generate enthusiasm for a shared vision of the school?
3. Manage change in your school?
4. Create a positive learning environment in your school?
5. Facilitate student learning in your school?
6. Raise achievement on standardized tests?

We developed a new four-item scale for the principal survey to measure leaders' collective efficacy beliefs about school improvement. Beginning with the stem *To what extent do you agree that*, these items included the following:

1. School staffs in our district have the knowledge and skill they need to improve student learning?
2. In our district, continuous improvement is viewed by most staff as a necessary part of every job?
3. In our district, problems are viewed as issues to be solved, not as barriers to action?
4. District staff members communicate a belief in the capacity of teachers to teach even the most difficult students.

Previous studies of school-leader efficacy have measured the effects of various demographic variables, but without much effort to explain why such variables might influence sense of efficacy. Few demographic variables have been shown to have a significant influence on leader efficacy. Personal characteristics measured in our study include leader race/ethnicity, gender, years of experience as a school administrator, and years of experience in one's current school. We also measured a handful of organizational characteristics plausibly related to leader efficacy including school and district size, school level, and number of different principals in the school over the past 10 years.

We collected data on student achievement from school websites. These websites provided school-wide results from state-mandated tests of language and mathematics at several grade levels from 2003 to 2005. We averaged results across grades and subjects in order to increase the stability of the scores. We then estimated a change score, the average change in each school from 2003 to 2005, and recorded the annual achievement score for each of the three years. This score was the proportion of students in each school achieving at or beyond the *proficient* level on the states' tests.

Analysis. We aggregated individual teachers' responses to the teacher survey to the school level and then merged them with principals' responses to the school administrator survey. We used SPSS to calculate means, standard deviations, and reliabilities (Cronbach's alpha) for scales measuring variables of interest to this study. We conducted five types of analysis: (1) we calculated Pearson product correlations to estimate the strength of relationships between variables in the model; (2) we used standard multiple regression to determine the effects of a specific variable that differs from the effects of other independent variables (e.g., the differing effects of LSE and LCE on school conditions); (3) we used hierarchical multiple regression to examine the effects of particular variables or sets of variables on the dependent variable, after controlling for the effects of other variables (e.g., how the effects of district conditions on principal efficacy are moderated by district size); (4) we computed a *t*-test to determine the significance of leader gender; and (5) we used analyses of variance (one way ANOVA) to determine the significance of school level and leaders' race/ethnicity.

We used LISREL to test a model of the causes and consequences of school-leader efficacy. This path analytic technique allows for testing the validity of causal inferences for pairs of variables while controlling for the effects of other variables. We analyzed

data using the LISREL 8 analysis of covariance structure approach to path analysis and maximum likelihood estimates.¹⁷⁵

Nature of the Evidence

Here we were motivated by questions about (1) district antecedents of school leaders' efficacy, and possible differences in the antecedents of individual as compared with collective leader efficacy, (2) consequences of school-leader efficacy for leader behavior, as well as school and classroom conditions, and (c) effects of leader efficacy on student learning. We also examined the moderating effect of a handful of demographic variables.

Table 2.2.1 reports the means, standard deviations, and scale reliabilities for responses to the teacher and principal surveys. These data are based on responses from 96 schools and administrators (an 83% response rate) and 2,764 teachers (a 66% response rate).

Table 2.2.1
Means, Standard Deviations, and Scale Reliabilities for Variables Measured
(N = 96)

	Mean	SD	Reliability	Number Items
Leader Collective Efficacy-LCE	4.80 ¹	.82	.85	4
Leader Self-efficacy-LSE	4.03 ²	.60	.92	6
District Conditions ¹⁷⁶	4.78	.72	.92	30
District Leadership ¹⁷⁷	4.80	.85	.89	18
School Leadership ¹⁷⁸	4.55	.52	.95	20
School Conditions	4.10	.46	.83	21
Classroom Conditions	4.69	.25	.60	15

Rating scales: ¹1=Strongly Disagree to 6= Strongly Agree for all but the following variable.

²Leader Self-Efficacy 1=Very Little to 5=Very Great.

Analyses reported below include a series of correlations and regressions followed by a path model. Our data do not permit us to make strong claims about cause and effect relationships. Nonetheless, we use the language of "effects" throughout as an indication of the nature of the relationships in which we were interested.

¹⁷⁵ Joreskog & Sorbom (1993).

¹⁷⁶ These conditions are described in more detail in Section 2.3.

¹⁷⁷ For a full definition of how this variable was conceptualized, please see previous Section 1.4.

¹⁷⁸ See previous Section 1.4 to view measures which were included from the teacher survey.

District Antecedents of School-Leader Efficacy

District leadership. As Table 2.2.2 indicates, our aggregate district leadership variable is strongly related to LCE (.61) and significantly but moderately related to LSE (.32). Among the four dimensions included in our conception of district leadership, the strongest relationship with LCE is *Redesigning the organization* (.61) followed by *Developing people* (.55), *Managing the instructional program* (.53) and *Setting directions* (.42). With LSE, the strongest relationship is with *Managing the instructional program* (.33) followed by *Redesigning the organization* (.28), *Developing people* (.26) and *Setting directions* (.22).

Table 2.2.2
District Antecedents of School-Leader Efficacy: Correlation Coefficients
(N = 96 schools)

	LCE	LSE	Combined
District Leadership	.61**	.32**	.56**
Setting Directions	.42**	.22*	.39**
Developing People	.55**	.26**	.49**
Redesigning the Organization	.61**	.28**	.54**
Managing Instruct. Program	.53**	.33**	.52**
District Conditions	.68**	.44**	.67**
Focus on Quality	.66**	.39**	.63**
Use of Data	.52**	.35**	.52**
Targeted Improvement	.61**	.33**	.56**
Investment in Instruct. L.	.51**	.25*	.46**
Job-embedded Pro D	.40**	.35**	.45**
Emphasis on Teamwork	.57**	.45**	.60**
New School Relations	.58**	.35**	.56**
District Culture	.61**	.38**	.59**

** p < .01

*p < .05

Results of a standard regression analysis show that our aggregate measure of district leadership (using the adjusted R) explains 8% of the variation in LSE, half of which is accounted for by *Managing the instructional program*; it also explains 40% of the variation in LCE, of which significant contributions are made by *Redesigning the organization* (9%) and *Managing the instructional program* (4%).

District conditions. All eight sets of district conditions are significantly related to leader efficacy, strongly so with LCE. The strongest relationship with LCE is the

district's expressed *Focus on quality* (.66), followed, in order, by *District culture* (.61), *Targeted improvement* (.61), *Relations with schools and stakeholders* (.58), *Emphasis on teamwork* (.57), *Use of data* (.52), *Job-embedded professional development for teachers* (.40), and *Investment in instructional leadership at the district and school levels* (.51). We consider the nature and significance of this last district condition in greater detail later in this section, since it is a center-piece in the improvement efforts of many districts.

Relationships between district conditions and LSE are generally weaker, although still statistically significant. The strongest relationship here is with *Emphasis on teamwork* (.45), *Focus on quality* (.39), *District culture* (.38), *Use of data* (.35), *Job-embedded professional development for teachers* (.35), *Relations with schools and stakeholders* (.35), *Targeted improvement* (.31), and *Investment in instructional leadership* (.23).

Standard regression analyses indicate that the aggregate measure of district conditions explains 19% of the variation in LSE and 56% of the variation in LCE. Among the eight sets of conditions included in our district variable, significant contributions to explained variation in LSE were made by *Emphasis on teamwork* (18% of variation), *District culture* (13%), *Focus on quality* (12%), *Relations with schools and stakeholders* (11%), *Data use* (11%), *Job-embedded professional development for teachers* (10%), *Targeted improvement* (9%), and *Investment in instructional leadership* (5%). For LCE, the contributions to overall explained variation were: *Focus on quality* (42%), *Targeted improvement* (36%), *District culture* (36%), *Relations with schools and stakeholders* (33%), *Emphasis on teamwork* (31%), *Use of data* (26%), *Investment in instructional leadership* (25%), and *Job-embedded professional development for teachers* (15%).

Effects of Leader Efficacy on Leader Behavior, School and Classroom Conditions

Table 2.2.3 reports correlations between LSE, LCE, an aggregated measure of efficacy and leader behavior (in the *Combined* column), school conditions, and classroom conditions. The strongest relationships are between *School conditions* and *Aggregated efficacy* (.46) followed closely by the relationship between *Classroom conditions* and *Aggregated efficacy* (.40). Correlations between *School leadership* and both *Aggregated efficacy* and LSE are comparable (.30 and .32). LSE has substantially higher correlations with *School leadership* than does LCE. Correlations between LSE and the four separate dimensions of leadership are roughly similar, ranging from a low of .25 (*Developing people*) to a high of .39 (*Setting directions*); for LCE, the range is between .14 (*Managing the instructional program*) and .23 (*Redesigning the organization*).

Table 2.2.3
Leader Efficacy Relationships with School Leader Practices
and School and Classroom Conditions
(N = 96 schools)

	LCE	LSE	Combined
School Leadership	.20	.32**	.30**
Setting Directions	.20*	.39**	.35**
Developing People	.18	.25*	.25*
Redesigning the Organization	.23*	.30**	.31**
Managing Instruct. Program	.14	.30**	.26*
School Conditions	.42**	.37**	.46**
Classroom Conditions	.36**	.30**	.40**

** p < .01

*p < .05

Standard regression equations were used to estimate the “effects” of LSE, LCE, and an aggregate measure of efficacy on leader behavior as well as school and classroom conditions. The aggregate efficacy measure explained 9% of the variation in leader behavior; LSE explained 7%; and LCE had no unique effect. Both forms of efficacy combined explained more variation in *School* (19%) and *Classroom* (14%) conditions than either did separately; when examined separately, LSE and LCE explained roughly the same amount of variation in *School conditions* (4 and 8%), but only LCE explained any significant amount variation in *Classroom conditions* (7%).

Effects of Leader Efficacy on Student Achievement

Table 2.2.4 reports correlations between alternative estimates of student achievement and our three leader-efficacy measures. LSE is not significantly related to any of the estimates of student achievement. However, there are consistent and significant relationships with each year’s annual achievement scores (% of students achieving at or above the *proficient* level) for our other two efficacy measures. Two of the three annual achievement scores are significantly related to LCE (.33, .29). All three annual achievement scores are significantly related to our aggregate efficacy measure (.28, .24 and .25).

Table 2.2.4
Leader Efficacy Relationships with Mean Achievement Gain and
Percentage of Students at State Proficiency Level

	LCE	LSE	Combined
Mean Achievement Gain (N = 77)	-.03	.13	.05
Proficiency 2003 (N = 78)	.33**	.16	.28*
Proficiency 2004 (N = 79)	.29**	.12	.24*
Proficiency 2005 (N = 67)	.23	.21	.25*

** p < .01

*p < .05

Results of a regression analysis indicate that neither LCE alone, LSE alone, or an aggregate efficacy measure account for significant variation in the three-year mean student achievement change score. Leader efficacy, however, does explain significant variation in annual achievement scores. The aggregate efficacy measure and LCE explain comparable amounts of variation in achievement scores for 2003 (7 and 8%), and 2004 (5 and 7%). In 2005 only the aggregate efficacy measure explains significant variation in student annual achievement scores (5%). LSE alone had no significant explanatory power.

Moderating Variables

The variables we designated as moderators have potential effects on the relationship between district leadership, district conditions, and leader efficacy. Potentially, they may also moderate the relationship between leader efficacy and conditions in the school and classroom, as well as student achievement.

Our results indicate that some potential moderators had no influence on either set of relationships. This was the case for *Leader gender*, *Experience*, and *Race/ethnicity*, so we do not consider them further. On the other hand, *District size*, *School size*, *School level*, and *Number of principals in the school over the last 10 years* were significant moderators of the relationship between efficacy and conditions in the class and school, along with student achievement. District-leader efficacy relationships were unaffected by any of our potential moderators.

To estimate the effects of the four remaining variables on efficacy, we entered both types of leader efficacy, as well as the combined efficacy measure, into a series of regression equations, adding *District size*, *School size*, *School level*, and *Number of principals in the school over the last 10 years*. As a group, these moderators:

- increased the variation in leader behavior explained by both sources of efficacy combined from 9% to 19%, by LSE alone from 9% to 19%, and by LCE alone from 3% to 16%
- increased the variation in school conditions explained by both sources of efficacy combined from 20% to 34%, by LSE alone from 11% to 25%, and by LCE alone from 18% to 34%
- increased the variation in class conditions explained by both sources of efficacy combined from 15% to 30%, from LSE alone from 8% to 22%, and from LCE alone from 14% to 30%
- increased the variation in student annual achievement scores explained by both sources of efficacy from 8% to 14%

The moderators did not add to the variation in student achievement explained by LSE. *School level* and *District Size* contributed unique variation to many of these relationships and should be considered the most powerful of the moderators included in this study. Both of these moderators depressed the strength of the relationships in which they were significant. In other words, the contributions of both LSE and LCE to most of the relationships with which they were associated were muted by increased district size and in secondary as compared with elementary schools.

The Causes and Consequences of School Leaders' Efficacy Beliefs: Testing a Model

Figure 5 summarizes the results of testing a model of the causes and consequences of leader efficacy beliefs using path modeling techniques (LISREL). The model is an acceptable fit with the data (RMSEA = .00, RMR = .03, AGFI = .93 and NFI = .97). It indicates that the most direct "effects" (standardized regression coefficients) of district leadership are on the creation of those district conditions believed to be effective in producing student learning (.77); these district leadership effects account for 60% of the variation in district conditions. District conditions, in turn, influence aggregate school leader efficacy (.68); 46% of the variation in leader efficacy is explained by the effects of district conditions.

School leader efficacy is moderately associated with school conditions (.22). Aggregate leader efficacy explains 14% of the variation in leader behavior and 57% of the variation in school conditions in combination with leader behavior, with most of this variation attributable to LCE. The model suggests both direct effects of school conditions on student learning (.44) and indirect effects through classroom conditions (.88); school conditions explain 58% of the variation in class conditions. The model as a whole explains 17% of the variation in student achievement.

Most of these results seem reasonable, the exception having to do with classroom conditions. Our analysis produced a non-significant and negative direct relationship between class conditions and student learning. We have no firm explanation for this

surprising result, but the marginal reliability of the scale used to measure classroom conditions ($\alpha = .60$) may provide part of the answer.

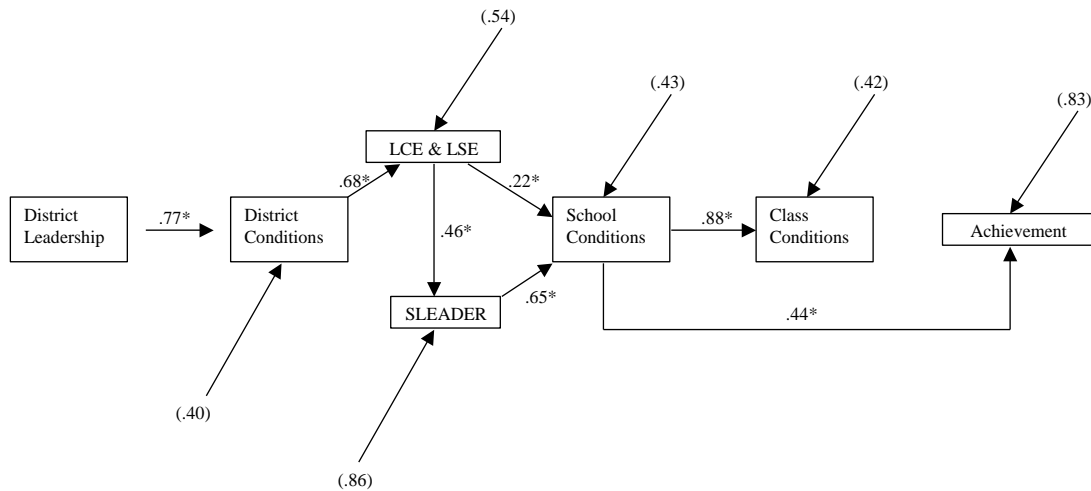


Figure 5: Modeling the Relationship among Variables Related to Leader Efficacy

Fit Indices		Standardized Total Effects on Student Achievement	
RMSEA	.00	District Leadership	.08*
RMR	.03	District Conditions	.10*
AGFI	.93	Combined Leader Efficacy	.21*
NFI	.97	School Leader Behavior	.27*
		School Conditions	.40*
		Class Conditions	-.04

Analyses of our quantitative data can be summed up as follows:

- The effects of district leadership on principals, schools, and students are largely indirect, operating through district conditions.
- District leaders help to create conditions that are viewed by school leaders as enhancing and supporting their work.
- All four dimensions of district leadership were moderately to strongly related to principal efficacy (arguing for district leaders' adoption of a holistic approach to their own practice).
- The greatest effect of district leaders will be the outcome of engaging in all four sets of practices in a skillful manner.

District conditions had larger effects on principals' collective efficacy than on their individual efficacy—providing some confirmation for Chen and Bliese's (2002)

expectation that such differences would likely exist. This expectation is based on the relatively direct influence of organizational conditions on collective efficacy, with less direct influence on individual efficacy. Common to both types of efficacy, however, is the strong influence of the district's focus on student learning and the quality of instruction, as well as district culture. These mutually reinforcing district conditions seem likely to attract the collective attention of school leaders to the district's central mission.

Also common to both types of efficacy is our discovery that the relationships between district investments in developing instructional leadership and both types of leader efficacy were the weakest of the relationships tested. Furthermore, district investments in instructional leadership had a substantially greater influence on leaders' collective efficacy than on their individual efficacy. Perhaps such an investment by districts has greater symbolic than instrumental value; it signifies the district's commitment to improving learning more than it actually develops greater capacity for the task. This conjecture on our part certainly warrants more direct study.

We found a modest effect of a combined or aggregate measure of individual and collective principal efficacy on the leadership practices of principals, mostly accounted for by individual efficacy. There was a stronger though still moderate effect of aggregate leader efficacy on both classroom and (especially) school conditions. Collective efficacy explained most of this variation.

The relationship between principals' efficacy and their leadership practices or behaviors were weaker than we expected. One plausible explanation is that our measure of leadership practices did not adequately capture the consequences of different levels of efficacy (or confidence) for what leaders do and how they are perceived. These consequences may have less to do with the practices themselves and more to do with the "style" of their enactment (e.g., acting with assurance, displaying a confident attitude, remaining calm in the face of crises).

We found relatively small but significant effects of leader efficacy on student learning. The size of these effects is comparable to what others have reported about school-leader effects on learning and other student outcomes.¹⁷⁹

The extent of principal-efficacy effects on schools and students is significantly moderated by a handful of organizational characteristics (school size, district size, school level, frequency of principal succession), but by none of the personal variables included in our study (i.e., leaders' gender, experience, race, or ethnicity). The moderating effects of organizational characteristics are to be expected, since district size and school size almost always "make a difference," no matter what the focus of the research is.¹⁸⁰ Elementary schools are typically more sensitive than secondary schools to leadership influence, although previous leader-efficacy research has reported mostly non-significant effects.¹⁸¹ And the rapid turnover of principals has been widely decried as anathema to

¹⁷⁹ Hallinger & Heck (1996b); Leithwood & Jantzi (2005).

¹⁸⁰ e.g., Lucas, 2003; Smith, Guarino, Strom & Reed (2003); and Walberg & Fowler (1987).

¹⁸¹ DeMoulin (1992); Dimmock & Hattie (1996).

school improvement efforts.¹⁸² Now we have some evidence that the positive effects of leader efficacy are also moderated by school and district size (the larger the organization, the less sense of efficacy among principals).

Investments in Instructional Leadership Development: A Deeper Look

Many districts consider development of their principals' capacity for instructional leadership—one of the district conditions included in our measures—to be a cornerstone of their improvement efforts. In light of this, we used quantitative evidence from our second survey to understand in greater depth how districts' efforts to bolster principals' capacity for instructional leadership influence schools and students. More specifically, we asked:

1. How do principals assess the professional development and support their districts provide?
2. How does professional development, as principals experience it, affect principals' collective sense of efficacy?
3. How is development, as principals experience it, associated with student learning?

How Do Principals Assess the Professional Development and Support Their Districts Provide?

The second survey includes a number of items reflecting principals' belief that district staff members were making efforts to develop their skills. We framed these items generically, in an effort to tap the respondents' belief that professional development and support were being provided by the district. Sample items are shown below. While in many cases we have chosen to look only at principals, rather than including assistant or associate principals, in this case we chose to include all respondents (211), since there is no reason to assume that assistant or associate principals can or do receive fewer professional development resources, and our preliminary analysis suggested that there are no significant differences between the two groups.

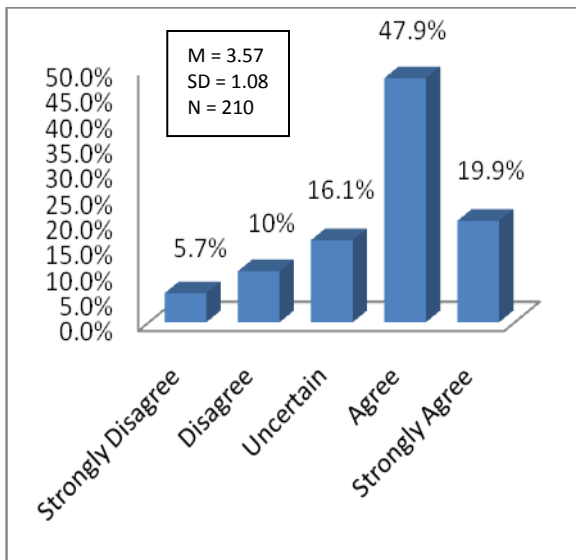
What becomes immediately apparent is that principals have a generally positive view of the districts' professional development efforts. The mean responses are, in all cases, above the midpoint, meaning that most principals agree, either slightly, moderately or strongly, that their district provides the type of professional development indicated. In addition, in no case do we find principals strongly disagreeing that their district provides them with a particular type of support.

Principals do, however, differentiate among the different categories of support and professional development expressed in the questions. The most positive view of district support occurs on three items: Most principals agree, either moderately or strongly, that district leaders:

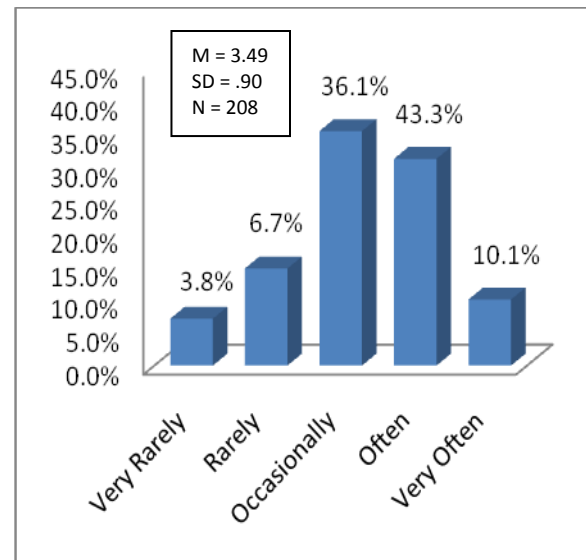
¹⁸² Hargreaves & Fink (2006); Macmillan (1996).

- encourage administrators and teachers to act on what they have learned in their professional development;
- encourage school administrators to work together to improve their instructional leadership; and
- work with school administrators who are struggling to improve their instructional leadership.

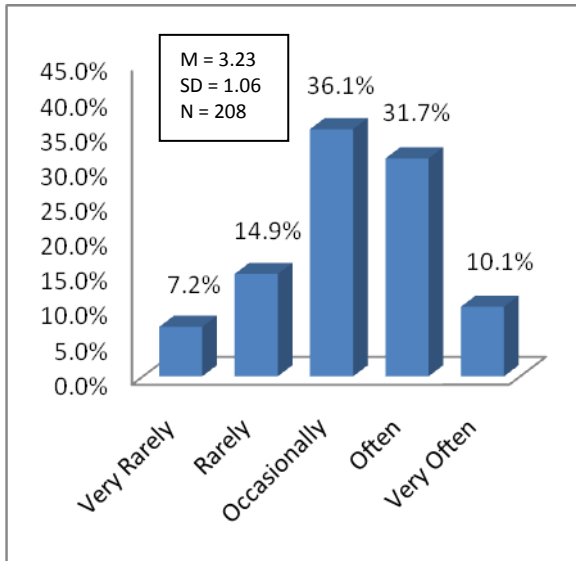
Principals appear to be somewhat less positive about three other indicators. Many indicate that they strongly disagree, disagree, or are uncertain that district leaders *Take a personal interest in my professional development*. Many also indicate that district leaders *Provide quality staff development focused on priority areas only occasionally, rarely, or very rarely*. They also give weak ratings to the frequency with which the district *Provides opportunities to work productively with colleagues from other schools*.



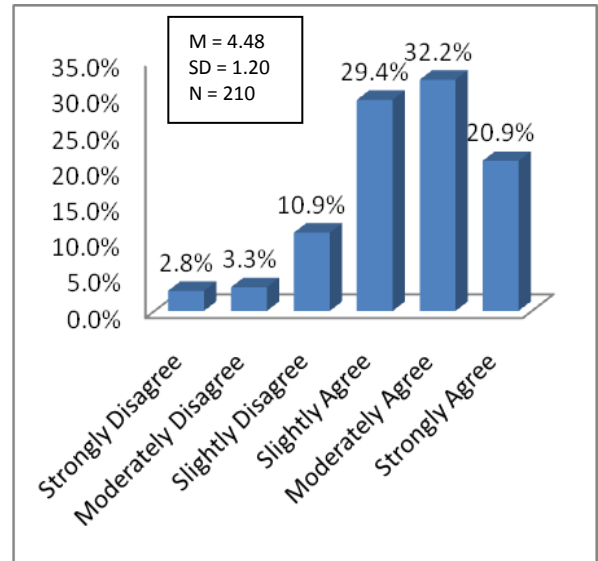
D2. District leaders take a personal interest in my professional development.



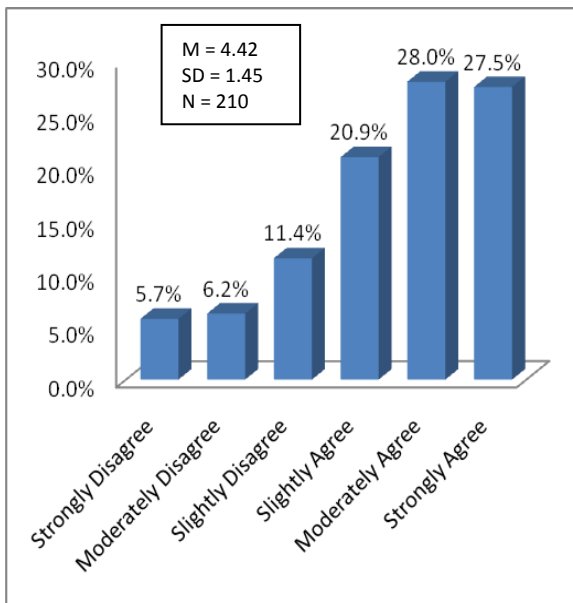
D15. How frequently do your district leaders provide quality staff development focused on high priority areas of instruction?



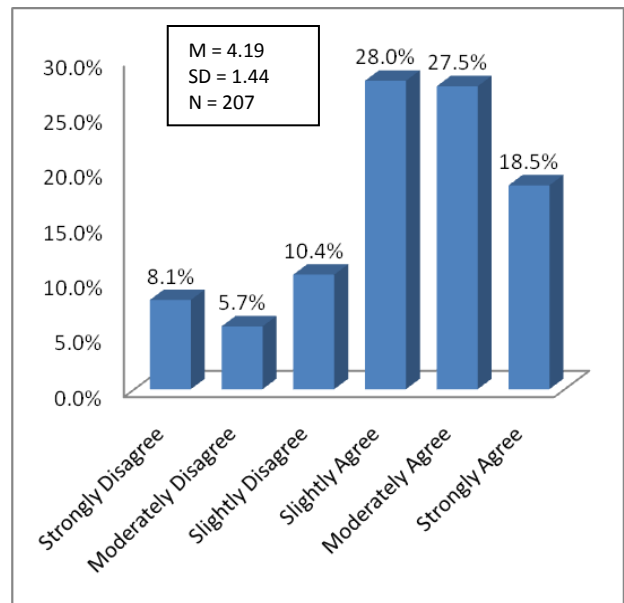
D16. How frequently do your district leaders provide opportunities for you to work productively with your administrative colleagues from other schools?



D27. District leaders deepen my understanding of instructional leadership.



D.32. District leaders encourage school administrators to work together to improve instructional leadership?



D.35. District leaders work directly with school administrators who are struggling to improve their instructional leadership?

Figure 6: Principals' Views of District Actions to Support Professional Growth

An additional question concerns the distribution of professional development among different kinds of schools. Using analysis of variance, we examined differences in professional development experiences among elementary, middle, and high schools, among larger and smaller schools, and among schools with more or fewer students in poverty. None of these variables appear to be significantly associated with principals' reports of their professional development experiences.

How Does Professional Development, as Principals Experience It, Affect Principals' Collective Sense of Efficacy?

To explore this question, we examined professional development in the context of several other factors that might affect principals' sense of collective efficacy. In particular, we wished to explore the general issue of whether professional development, which we view as *targeted support* for leadership, is more or less important than *pressure to increase achievement*, which is a major component of state policy. We assumed that effective leadership may require a combination of external support and pressure. In order to address this question we developed several new scales, using the second principal survey:

- *Professional development scale.* The six example items above (see Figure 6), and two additional items: *How frequently do your district leaders provide feedback to school administrators about the nature and quality of their leadership?* and, *How frequently do district leaders encourage administrators and teachers to act on what they have learned in their professional development?* were highly correlated, and we computed a composite scale using the eight standardized items ($\alpha = .88$).

We conducted factor analyses for a number of additional items related to district initiatives for improvement. Of these, we selected one that seems particularly pertinent to elaborating on the findings presented earlier in this section, since it emphasizes the district's accountability and pressure focus. In order to examine the relative importance of targets and accountability, we computed a new scale:

- *District data use and targets scale.* This factor loaded highly on items such as *Our district has explicit targets beyond NCLB targets*, *Our district incorporates student and school performance data in district-level decisions*, *Our district assists schools with the use of student/school performance data*, and *The district uses student achievement data to determine PD needs and resources*. We used an additive score of five standardized variables in this analysis, with $\alpha = .87$.
- *Collective sense of efficacy (LCE).* Our measure of collective sense of efficacy varied from the first survey, but it still emphasized the ability of leaders in the district to solve problems and improve student learning. Three items composed the scale for collective sense of efficacy: *School staffs in our district have the knowledge and skill they need to improve student learning*; *In our district, continuous improvement is viewed by most staff as a necessary part of the job*; and *In our district, problems are viewed as issues to be solved, not as barriers to action*. The alpha for this scale, using standardized variables, is .72.

- *Principal sense of efficacy scale (LSE)*. In addition, we wished to include a measure of individual sense of efficacy. Our measure here differed somewhat from the measure used in the first survey. In this case we focused on a longer battery of leadership competencies on which the principal rated him- or herself on a four point scale ranging from “basic” to “highly developed.” This scale included 10 items, including self-rated expertise in instructional strategies, coaching, managing student behavior, developing unity and teamwork among teachers, and motivating others ($\alpha = .74$).

To examine the effects of these variables on collective sense of efficacy, we used a regression model, entering the key variables identified above in a first step, and then entering potential mediators: school size, the school level (elementary/secondary), percentage of non-white students, percentage of students in poverty, and the individual’s position (principal or assistant principal). The results are shown below in Table 2.2.5.

This table indicates that district professional development and district targets both have a strong association with collective sense of efficacy (with pressure through targeted and data-focused expectations contributing more to collective efficacy). Individual sense of efficacy also makes a significant contribution to the relatively large percentage of variance explained. The school characteristics do not achieve a significant regression coefficient, nor does the Principal/Assistant Principal variable. The regression suggests that pressure and support are important predictors of collective sense of efficacy, but that pressure may be more important than support in the form of professional development for school leaders.

How Is Professional Development, as Principals Experience It, Associated with Student Achievement?

The bottom line for judging investments by districts working to develop instructional leadership is whether such investments are linked to student achievement. We examined this issue using causal modeling. The model assumes that *Professional development of school leaders (Support)* and *Targets and data (Pressure)* are both associated, directly and indirectly, with student achievement.¹⁸³

The model, which achieves a reasonable level of fit, explains approximately 7% of the variance in achievement, largely through the direct relationship assumed between collective efficacy and students’ test scores (.23). *Professional development of school leaders* has an insignificant direct path coefficient with student achievement, while *Targets and Data* has a significant negative relationship. This unexpected finding suggests that pressure, arising from targets and an emphasis on data use, may backfire in the classroom unless it is balanced with support (in this case, through professional development), so that it works by building a strong collective leadership base in the district.

¹⁸³ Based on analyses not shown here, we chose not to include Individual Principal Efficacy as a mediating variable. Individual Efficacy has no significant relationship with achievement, and the more complex model explains no additional variance.

In sum, the analysis suggests that investment in the professional development of school leaders will have limited effects on efficacy and student achievement unless districts also develop clear goals for improvement. On the other hand, setting targets and emphasizing responsibility for achieving them is not likely to produce a payoff for students unless those initiatives are accompanied by leadership development practices that principals perceive as helping them to improve their personal competencies.

Table 2.2.5
Regression of Collective Sense of Efficacy on District, Individual and School Characteristics
(N=191)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.045	.103		-.433	.665
District PD for Principals	.191	.061	.184	3.125	.002
District Use of Targets and Data	.611	.058	.628	10.588	.000
Principal Sense of Efficacy	.212	.067	.149	3.188	.002
Percent of Nonwhite Students	.156	.199	.060	.787	.433
Percent of Free or Reduced-lunch Students	-.271	.244	-.086	-1.113	.267
Total Number of Students	2.781E-5	.000	.023	.421	.674
Your title (Prin/AP)	.000	.002	.006	.123	.902

R2 = .626
F = 44.079, sig. .000

The Effects of District Pressure and Support on Collective Efficacy and Achievement

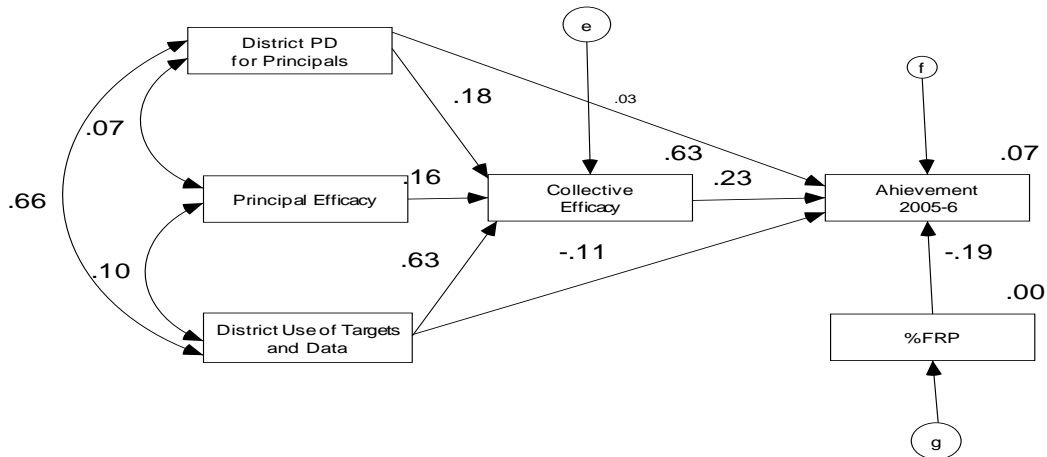


Figure 7: The Effects of District Pressure and Support on Collective Efficacy and Achievement

R2 for Collective Efficacy = .63
R2 for Achievement = .07
RMSEA = .268
CMin = 3.98, p = .55
NFI = .98

The findings about the importance of targets and data use, in combination with district professional development, are quite strong when moderated by principal efficacy. However, an analysis of data-use effects reported in Section 2.5, which did not use principal efficacy as a moderating variable, also reported significant data use effects on students, but only in elementary schools. Together, these analyses suggest that district data use matters, but further research will be needed before we fully understand the nature of that influence.

Implications for Policy and Practice

Four implications for policy and practice emerged from this section of our study.

1. District leaders should consider school leaders' collective sense of efficacy for school improvement to be among the most important resources available to them for increasing student achievement.
2. District improvement efforts should include, as foci for immediate attention, those eight sets of conditions which the best available evidence now suggests have a significant influence on principals' sense of efficacy for school improvement.
3. Principals who believe themselves to be working collaboratively toward clear, common goals with district personnel, other principals, and teachers in their schools are more confident in their leadership.
4. It is not enough to merely launch initiatives aimed at improving the sense school leaders have of their efficacy for school improvement. Such initiatives and the conditions on which they depend can be well or poorly implemented. It will take high-quality implementation at the district level to produce higher levels of principal efficacy.

2.3 How Districts Build Principals' Sense of Efficacy for School Improvement

Key Findings

- Districts contribute most to school leaders' sense of efficacy by the following means:
 1. Ensuring that teachers and administrators have access worthwhile programs of professional development, aimed at strengthening their capacities to achieve shared purposes
 2. Assigning priority, unambiguously, to the improvement of student achievement and instruction
 3. Making significant investments in the development of instructional leadership
 4. Ensuring that personnel policies support the selection and maintenance of the best people for each school
 5. Emphasizing teamwork and professional community
- The efforts districts make to build principals' sense of efficacy can have positive or negative consequences, depending on the manner in which the initiatives are implemented. Much depends upon the frequency, nature, and quality of experiences provided in the course of implementation.

Introduction

The concluding portion of Section 2.2 describes results from a quantitative examination of three district conditions (investments in the development of instructional leadership, setting targets for improvement, engaging in data-informed decision-making) as they may affect the sense leaders have of their efficacy for fostering school improvement and student achievement. This section extends that line of inquiry to all eight of these district conditions identified earlier, plus additional district factors that emerged from our qualitative inquiries.¹⁸⁴

¹⁸⁴ Readers wishing to know more about our conception of efficacy, background research relevant to our study of efficacy, and how we identified its importance in district efforts to improve student achievement are referred back to Section 2.2.

New Evidence

Method

Sampling. We conducted site visits for the qualitative component of our larger study in 18 districts (two per state) and 36 schools. We obtained evidence for this sub-study from the 31 principals for whom complete data were available at the time of analysis. We visited two schools (one elementary, one middle school or high school) in each district to interview teachers and administrators and to observe classroom practice. In addition, we conducted district-level interviews focused on the study of leadership and learning.

The 31 principals we interviewed for this sub-study included 19 females and 12 males from 13 elementary, seven secondary, nine intermediate, one combined elementary/middle school, and one junior/senior high school. Principals in this sample had been leading their schools for an average of 4.67 years (ranging from 1 to 22 years), and had been working in their present districts for an average of 7.83 years (ranging from 1 to 27 years). While prior evidence paints a mixed picture of the influence of demographic variables on leader efficacy, the overall effect of such variables seems to be weak or non-existent.¹⁸⁵ For example, virtually no evidence suggests that school level or size,¹⁸⁶ teachers' age or total years of experience in education, student SES or student ethnicity, influence leader efficacy.¹⁸⁷

Gender appears to be the most influential demographic variable. Although most studies report no influence of gender,¹⁸⁸ a few report women's professional efficacy levels to be higher than men's.¹⁸⁹ Here, we report interviewee demographic information for descriptive purposes only.

Instrument. In interviewing principals we were guided by a 21-question, semi-structured protocol focused on principals' views of state and district initiatives, principals' leadership practices, the distribution of leadership in the principals' schools, the professional development needs of teachers and principals, and relationships between the principals' schools and their communities.

We recorded the interview sessions, which lasted an average of 60 minutes, and transcribed them. Because the importance of school-leader efficacy became apparent to us only after we analyzed our survey data, the interview protocol did not include questions designed to elicit leader-efficacy information. As a result, the distinction between personal and collective efficacy is less clear from these results than we would wish in an ideal world.

¹⁸⁵ Gareis & Tschannen-Moran (2005).

¹⁸⁶ But see DeMoulin (1992).

¹⁸⁷ E.g., Gareis & Tschannen-Moran (2005); Lucas (2003); and Roberts (1997).

¹⁸⁸ E.g., Dimmock & Hattie (1996); Roberts (1997).

¹⁸⁹ Imants & DeBrabander (1996); Waskiewicz (2002).

Analysis. We examined interview transcripts for evidence of district conditions that would influence principals' efficacy. Data analysis proceeded in two phases. In phase one, we coded relevant sections of the transcripts for each principal and culled excerpts under three headings linked to our conceptual framework:

1. *Indicators/feelings identified by principals of their ability to get the job done.* These are statements providing evidence of the interviewees' sense of efficacy to perform their jobs effectively. The statements were often embedded in other statements about influential district or school-level conditions, as illustrated in the sample quote below.
2. *Factors in the district that influence principals' ability to get the job done.* These are factors giving rise to Indicators/feelings. We separated factors according to their reported positive or negative influence on the principal's ability to get the job done.
3. *District conditions.* We coded each district factor according to nine district conditions (see Table 2.2.2). Some factors were related to more than one condition. For example, "the district holds regular meetings for administration groups to keep everyone up to date so people can act as supports and resources for one another" would be coded under *Use of data* as well as *Emphasis on teamwork*.

Seven of the district conditions listed in Table 2.2.2 were based on Anderson's review of the literature on the school district role in educational change (Anderson, 2006). Two (*District personnel policies; District policy governing school choice*) were added as they emerged inductively from our analysis of the interview data. We recorded them and subsequently treated them like the original seven conditions. Initially, one analyst did all the coding. Then, to check on reliability, we asked two other researchers working on the larger project to code a sample of transcription data. For background, we provided them with an introduction to this study, information about the district conditions, a numbered list of the conditions with a brief explanation of each, and a chart of 25 uncoded quotations from the principal transcripts. Their task was to match each quotation to an appropriate district condition. Decisions by the two coders were the same as decisions by the original coder 88% (22 out of 25 quotations) and 84% (21 out of 25 quotations) of the time.

In the second phase of this analysis we used a process of analytic induction¹⁹⁰ to generate propositions that reflected our interpretation of findings grounded in the interview excerpts and related to the appropriate conceptual framework codes. For example, when a principal said:

I am like a cheerleader for them [teachers] and they have to be there for the kids. But I recognize that they were not trained. They haven't had the training. Their curriculum was not there. They didn't have the materials to do what they wanted to do,

¹⁹⁰ Glaser & Strauss (1967).

we coded the statement under Indicators/Feelings, and we interpreted and summarized it in propositional form as, “A new principal feels enthusiastic about the work in the school, but recognizes the teachers have been lacking training, curriculum, and materials for teaching.”

This statement was also coded as a district factor, which we interpreted as, “The district is not providing adequate financial support for professional development or for instructional materials.” While the interpretive process in the conversion of qualitative data to statements of findings is always subject to concerns about validity, we believe that clear descriptions of the analytical procedures employed provide the reader with a legitimate basis for assessing the trustworthiness of the findings.

District Conditions Associated with Principals’ Efficacy for School Improvement

Questions motivating this sub-study focus on the extent to which conditions associated in previous research with school district effectiveness were reported as influences on principals’ sense of efficacy, and whether additional district conditions also had such influence.

Table 2.3.1 summarizes evidence about the number of respondents who identified each of the original district conditions, along with two more suggested by our data (number 4 and number 9) as having a bearing on their own sense of professional efficacy. The first column of Table 2.3.1 shows the relative rankings of the nine conditions and the efficacy-influencing enactments related to each condition (also ranked). The second and third columns show positive and negative effects on efficacy, and the fourth column shows the total number of respondents who made positive or negative comments. (Several respondents identified both positive and negative features of some conditions.)

Table 2.3.1
District Conditions Associated with Principal Efficacy

District Conditions ¹⁹¹	Respondents N=31 (Rank) <i>Positive</i>	Respondents N=31 (Rank) <i>Negative</i>	Totals
1. District-wide focus on student achievement and instruction	28 (3)	16 (1)	44
Provides clear sense of direction through establishment of achievement standards and provision of district-wide curriculum and/or programs ¹⁹²	23	8	
Provides human and financial resources to assist schools in achieving district-established directions	15	11	
Communicates high expectations for the work of teachers and principals in accomplishing district directions and implementing effective instruction	14	2	

¹⁹¹ Two conditions added to the original eight are identified by *.

¹⁹² All statements related to conditions are stated in the positive.

District Conditions ¹⁹¹	Respondents N=31 (Rank) <i>Positive</i>	Respondents N=31 (Rank) <i>Negative</i>	Totals
Allows schools sufficient flexibility in pursuing district directions	11		
Engages in ongoing or periodic review of directions and plans	5		
2. Job-embedded professional development (PD) for teachers	29 (2)	10 (2)	39
Provides evidence to assist in the planning of teacher PD	4		
Holds principals accountable for implementing and following up on what is learned during district – sponsored PD	19	2	
Encourages the use of school staff meetings for purposes of PD	11	1	
Approves of a wide-variety of types of PD but insists they be meaningful for teachers and aligned with district goals and priorities	17		
Provides adequate funds to support significant PD	13	6	
May mandate participation in PD considered critical to the achievement of district priorities.	17	5	
3. Investment in both school- and district-level instructional leadership	30 (1)	3 (7)	33
Establishes teachers’ work as the main focus of attention for school leaders	28		
Provides a wide range of professional development opportunities to help build the instructional leadership capacities of principals	20	3	
Holds principals directly responsible for student achievement in their schools	23		
4. District personnel policies	22 (5)	10 (3)	32
Stability in district leader roles	10	3	
District hiring policies ensure principals can select outstanding teachers	9	4	
District leaders assume school leadership roles when needed	4		
Competent principals are hired from within the district and their capabilities matched with school needs	9		
Principal succession is planned and minimized	4	2	
5. Emphasis on team work and professional community	26 (4)	2 (8)	28
Support and encouragement are provided for teacher and principal collaboration	6		
Principals and teachers participate in district-wide decisions that directly impact on their work	12	1	
Structures are established which allow for sharing of information and collaborative problem solving within and across schools	10		
District ensures that schools are kept informed about	13		

District Conditions ¹⁹¹	Respondents N=31 (Rank) <i>Positive</i>	Respondents N=31 (Rank) <i>Negative</i>	Totals
both state and district initiatives.			
6. District-wide use of data	18 (7)	5 (5)	23
Insists on data-based decision making in schools	12	5	
Provides schools with much of the data they need to exercise data-based decision making	4		
Assists schools in the interpretation and use of data for decision making	4		
Creates structures which foster the sharing of information across schools and between schools and the district	3		
Uses data to determine the goals for principal and teacher professional development	6		
7. Targeted and phased focuses for improvement	20 (6)	1 (9)	21
Requires the development of improvement plans in all schools (either district- or school-developed)	9		
School improvement goals are clear and aligned with state and district standards	7		
School improvement plans are aligned with district improvement plans	7		
In cases of school-developed improvement plans, district provides a procedure for the development of the plan.	6		
8. Relations with schools and stakeholders (district, board, union, school)	16 (8)	4 (6)	20
Provides significant opportunities for principals and teachers to be involved in decisions at the district level	4		
District staff keep well informed about school programs, priorities, initiatives, and programs	6	1	
Encourages communication across schools by principals and provides opportunities for this to occur	10	1	
Permits flexibility for schools in the enactment of district initiatives	9	4	
9. District policy governing school choice	0	8 (4)	8
District protects schools from rapid and dramatic changes in curriculum and student population		8	

Our analysis prompted us to relocate one of the district sub-conditions and to add two new conditions. The sub-condition we have relocated is union-school relationships. Our previous review of evidence included this as part of *Emphasis on teamwork and professional community*; we now think it should be part of *Relations with schools and stakeholders* (condition #8, in Table 2.3.1). Principals in our sample spoke about the effects of strong unions, focused primarily on teachers’ working conditions, as obstacles to creating collaborative cultures and engaging teachers in school- and district-wide decision making. Our evidence shows this relationship with unions to be largely negative—a drain on principals’ sense of efficacy. Unlike the evidence from some studies

reviewed by Anderson, none of the evidence we obtained from principals alluded to the positive contributions teacher unions can make to school improvement efforts, which could enhance the principal's sense of personal and collective efficacy.

Our evidence also suggested the need to add two district conditions not included in our original list of conditions associated with district effectiveness: *District personnel policies* and *District policies governing school choice*. These added conditions are discussed in more detail below.

Evidence summarized in Table 2.3.1 indicates that principals viewed the enactments of the respective conditions in their own districts with a largely positive bias. The conditions making the greatest positive contribution to the principals' sense of efficacy were, in order, a *District-wide focus on student achievement and instruction*, *Job-embedded professional development for teachers*, *Investment in both school- and district-level instructional leadership*, and *District personnel policies*. Principals mentioned *District policies governing school choice* only as negative influences on their sense of efficacy.

The conditions cited most frequently (by a third or more of the sample) as negative influences on efficacy were *District-wide focus on student achievement and instruction*, *Job-embedded professional development*, and *District personnel policies*. These three conditions account for a disproportionate number of both positive and negative influences on efficacy—very sharp, double-edged swords.

Our findings regarding the nine district conditions and the related efficacy-producing enactments are described in the following section. The numbers in parentheses following efficacy-producing enactments indicate how many principals made comments that reflected a positive influence on their efficacy (e.g., 9+), or a negative influence on their efficacy (e.g., 3-). Excerpts from principals' transcripts illustrate positive influences.

1. District-wide focus on student achievement and the quality of instruction. This condition elicited positive responses from 28 principals and negative responses from 16. Enactments of this condition positively associated with principal efficacy include district-provided curriculum and performance standards, with flexibility for implementation; clear policies, with a procedure for ongoing review and revisions; assignment of subject-area facilitators to schools; and support for differentiated instruction.

Enactments negatively associated with principal efficacy include district enforcement of common standards, with no credit given for large gains schools have made in cases in which standards have not yet been reached; adoption of initiatives based on conflicting assumptions or ideologies; adoption of a focus for student learning that narrows the curriculum and minimizes the value of important fields of study; and excessive prescriptions about how principals and teachers must pursue the district's curriculum standards and achievement goals.

In sum, according to our evidence, principal efficacy is enhanced when enactments of this condition include the following:

- Districts provide a clear sense of direction through the establishment of achievement standards and district-wide curriculum and/or programs. (23+, 8-)

Excerpt: The fact that we have a more central focus and central direction, I think, has improved student instruction and improved student learning, and forced us to take a hard look at what we're doing with students.

- Districts provide human and financial resources to assist schools in achieving district-established directions. (15+, 11-)

Excerpt: I think in general it's really a privilege to work in a district like this. There's a great deal of support, you know, budgetarily, which helps us to move things in a direction that we feel is positive, that's gonna help the students, so, we have a lot advantages.

- Districts communicate high expectations for the work teachers and principals do accomplish district directions and implement effective instruction. (14+, 2-)

Excerpt: I would say the accountability at all campuses. The superintendents that we've had have put a lot of pressure on the principals, to make sure that the teachers feel more accountable for the students that they have.

- Districts allow schools sufficient flexibility in pursuing district directions. (11+, 1-)

Excerpt: The impetus to tailor it to the school site has been very clearly indicated. But the initiatives have come out of the district office.

- Districts engage in ongoing or periodic review of directions and plans, and make revisions as appropriate. (5+)

Excerpt: Our district curriculum now has been rewritten to mirror the state curriculum but also all of that ties into our state testing. So the state testing now is more in alignment with what is actually being taught.

2. *Job-embedded teacher professional development.* Professional development is an important element in the enactment of most of the conditions we are investigating. It elicited positive responses from 29 of the 31 principals in our sample. Ten principals, however, identified some aspect of district-sponsored professional development as having a negative influence on their efficacy.

Enactments of this condition positively associated with principal efficacy include districts providing data and guidelines to help principals and teachers to deliver better

instructional programs; district support for attendance at professional development conferences; encouragement to use school staff meetings for professional development purposes; alignment of professional development programs with the district's curriculum; district provision for flexibility such that schools may design their own professional development programs; and provision of adequate funding for various approaches to professional development.

Enactments of this condition viewed less favorably by principals include requiring excessive professional development for teachers and principals; allowing in-school professional development to crowd out time for teacher collaboration; setting limits on the use of substitute teachers; setting restrictive limits on authorized absences from the school building for professional development; providing inadequate funding for professional development; and focusing on professional development for one initiative in such a way that other important initiatives are left unsupported.

In sum, according to our evidence, principal efficacy is enhanced when enactments of this condition include the following:

- Districts hold principals accountable for implementing and following up on what is learned during district-sponsored professional development. (19+, 2-)

Excerpt: I think fundamentally my role is to help hold people accountable that the professional development initiatives and activities ... are then reflected in practice so that it's not just simply, "Here's a good idea somebody thinks we should be talking about."

- Districts approve many types of professional development but insist they be meaningful for teachers and aligned with district goals and priorities. (17+)

Excerpt: I think we do have some direction from our central office and from our curriculum director about where we should go, but we also have flexibility about how we are going to do that.

- Districts mandate participation in professional development considered critical to the achievement of district priorities. (17+, 5-)

Excerpt: With that the district said how we were to do it. It provided professional development for the teachers, for myself, so that we could go and be trained in it. And then as a result we are expected to follow that curriculum.

- Districts provide adequate funds to support significant professional development. (13+, 6-)

Excerpt: *[Districts] encourage [teachers] to attend professional development that's offered by the district. Encourage and/or financially support them to attend outside professional development*

- Districts encourage the use of school staff meetings for professional development. (11+, 1-)

Excerpt: *Because part of what we do is if the district office offers in-service kinds of things or professional development, either the department chairs go, or they send stronger teachers to go and bring it back to the department.*

- Districts provide evidence to assist in the planning of professional development for teachers. (4+)

Excerpt: *Definitely a push towards using data . . . to create teacher leaders, recognizing that that's where the staff development needs to happen.*

3. *Investment in both school- and district-level instructional leadership.* This condition elicited positive responses from all but one of the 31 principals; it elicited negative responses from three. Enactments of this condition positively associated with principal efficacy include districts providing support for principals' professional development; districts providing individualized support for principals, depending upon the challenges they face in their schools; districts holding principals accountable for student achievement and teacher contributions to student achievement; districts giving principals responsibility for responding to student data; districts providing district staff to oversee subject-matter teaching in all elementary schools; districts providing a curriculum with supporting professional development for principals and teachers.

Enactments of this condition associated with negative consequences for principal efficacy include districts *not* supporting principals' professional development; districts *not* providing enough professional development; and districts requiring teachers and principals to participate in excessive amounts of professional development. As these examples illustrate, enhancing efficacy through professional development requires something of a balancing act. Principal efficacy is fostered in a positive way by the right amount of professional development and in a negative way by either too much or too little.

In sum, according to our evidence, principal efficacy is enhanced when enactments of this condition include the following:

- Districts make teachers' work the main focus of attention for school leaders. (28+)

Excerpt: *We have to participate, we have to help rather than manage. Although a lot of the job is still managing because there is still the paperwork. ... We also have to relate more to the teachers and the students. To actually know what they are doing in the classrooms.*

- Districts hold principals responsible for student achievement. (23+)

Excerpt: *Frankly my communication is very simplistic. I tell people, I tell our staff constantly that my goal and I expect it to be theirs is that we help improve the student achievement and that we do so in a caring and nurturing environment.*

- Districts provide a wide range of professional development opportunities to help build principals' capacity for instructional leadership. (20+, 3-)

Excerpt: *We have principal meetings two times a month and then ... because I am a new principal this year, I get a third one. ... About every year I go to either a state or national conference and attend courses there ...and occasional workshops.*

4. *District personnel policies.* This is one of the two conditions we added to the original list of seven. It elicited positive responses from 22 principals and negative responses from 10. Enactments of this condition positively associated with principal efficacy include encouraging promotion of principals from within the district and giving principals a significant role in selecting teachers.

Respondents mentioned the importance of “matching” teachers and principals to the mission or culture of the school, or allocating especially effective principals to especially challenging schools. Hiring district office staff into school leadership roles was typically viewed as adding strength to the collective capacity of schools in the district. Stable and consistent district leadership, which we included as a feature of district personnel policies, also contributed to principals' sense of efficacy. Principals' commitment to directions established by the district, and confidence in being able to pursue them successfully, were significantly eroded by frequent superintendent turnover. Principals' efficacy was especially challenged when principals were appointed to schools that had been experiencing frequent turnover of leaders in recent years. We are not suggesting that district personnel policies, or policies governing school choice, should be regarded as additional dimensions of district effectiveness, as per the district conditions identified in Anderson's review (Anderson, 2006); it is simply the case that that they emerged in our analysis of principal interview data as additional sources of district influence on principal efficacy.

In sum, according to our evidence, principal efficacy is enhanced when enactments of this condition include the following:

- Districts provide stability in district leader roles. (10+, 3-)

Excerpt: *There have been a lot of changes in the district in the last couple of years. Some probably stem from the fact that there was a large turnover in leadership in the last couple of years. But education is constantly evolving. It's not a static thing*

- Districts hire competent principals from within, and principals' capabilities are matched with school needs. (9+)

Excerpt: *When I first took this building in 1989, I didn't want to come back because the morale was terrible here. But I took the challenge, I had been asked to come back and so I did. I have not been sorry. It has turned out to be everything I wanted it to be. Now I can kind of sit back and enjoy it.*

- District hiring policies ensure that principals can select and retain outstanding teachers.(9+, 4)

Excerpt: *Well, the principals do almost all the hiring in the district. As a matter of fact, I will be hiring a new teacher. ... So we control over what our staff looks like. ... It is about hiring good people but it is not always a guarantee. It is about keeping good people.*

- District leaders assume school leadership roles when needed. (4+)

Excerpt: *When I was weighing whether to leave Central Office or stay or leave to go to the building level, it was ... [this school]. I was interviewing prospective candidates for the principal here. No one knew anything about small schools. What they were going to do with this building was distressing me, you know?*

- Principal succession is planned and minimized. (4+, 2-)

Excerpt: *Cultivating our own leaders is very important ... which I really appreciate and admire about the school district. So that when you step into that position [of principal] you kind of know the district's way of doing things and you are able to just pick up and go.*

5. *Emphasis on teamwork and professional community.* This condition elicited positive responses from 26 principals and negative responses from two. Enactments of this condition positively associated with principal efficacy include keeping schools informed about state and district initiatives; providing support and encouragement for principal and teacher collaborative relationships; following through on state requirements in ways that led to greater collaboration within schools; and ensuring that district leaders meet with principals frequently to work through decisions together. Efficacy was influenced in a negatively at one small school where involvement in the district meant the principal had to allocate 15 curricular liaison positions among 11 staff members without overwhelming anyone.

In sum, according to our evidence, principal efficacy is enhanced when enactments of this condition include the following:

- Principals and teachers participate in district-wide decisions that have a direct impact on their work. (14+, 1-)

Excerpt: *The superintendent's office, the curriculum department really was working with a group of teachers and supervisors, administrators to come up with a new form that would make it easier for you to observe forty teachers but really pinpoint some areas that we wanted to work on.*

- Schools are kept informed about state and district initiatives. (13+)

Excerpt: *That is my work. ... The district translates what the state expects from us. ... We need to translate for our students, teachers, support staff, parents, what that means.*

- Districts provide structures that allow for sharing of information and collaborative problem solving within and across schools. (13+)

Excerpt: *During the summer, the superintendent housed all the top administrators, the principals and assistant principals for a whole week, and they had to learn to work together, not just within their campus, but within the district.*

- Districts support and encourage teacher and principal collaboration. (8+, 1-)

Excerpt: *One thing that our superintendent has presented us with is he wants us [principals and teachers] to be more collaborative.*

6. *District-wide use of data.* This condition elicited positive responses from 18 principals and negative responses from five. Enactments of this condition positively associated with principal efficacy include district provision of data useful to schools in planning for professional development; involvement of schools in decision making related to the data; engagement of an external person to conduct a curriculum audit, thus encouraging improved alignment within the district; and detailed guidance and support by the district for schools trying to interpret and use their data.

Of the five respondents who claimed negative effects on efficacy for this condition, one said that his or her district required more information about student achievement than he or she could collect. Another was unnerved by having sole responsibility for explaining state requirements to students, parents and teachers. In these and other cases, resistance and negative feelings focused largely on state requirements over which the principals had no control.

In sum, according to our evidence, principal efficacy is enhanced when enactments of this condition include the following:

- Districts insist on data-based decision making in schools. (12+, 5-)

Excerpt: *But the good news about all of that [district direction] is that we make very data-driven decisions now. We do a lot of assessments. Those are both local assessments and state assessments. We use that information obviously to plan for our children.*

- Districts use data to set goals for principal and teacher professional development. (6+)

Excerpt: *One of them is the data part and the district calls it data sources. Everybody has a data source. Then with the data source ... each teacher created a goal for him or herself in professional development.*

- Districts provide schools with much of the data they need to practice data-based decision making. (4+)

Excerpt: *[The district provides] an amazing amount of data. And the people to help us interpret that data.*

- Districts assist schools in the interpretation and use of data for decision making. (4+)

Excerpt: *We have had . . . extensive training from our central office on understanding and utilizing test data.*

- Districts create structures that foster the sharing of information across schools and between schools and the district. (3+)

Excerpt: *As an entire district we have our hand on every kid's test data. I don't care if it's elementary or high school. We have weekly administrative meetings and you know those issues will come up and communication is really strong.*

7. *Targeted and phased focus for improvement.* Enactments of this condition elicited positive responses from 20 school leaders and a negative response from one. Enactments positively associated with principal efficacy include district requirements for improved goal setting; the establishment of detailed school-improvement plans; requirements that community people participate in formulating school-improvement plans; clear articulation of expectations for student outcomes, derived from state policy; support for collaboration between high schools and middle schools; support for teachers engaged in using new instructional programs. Overall, principals associate positive feelings of efficacy with a significant level of prescription by the district about the nature of school improvement plans and the process for creating those plans.

In sum, according to our evidence, principal efficacy is enhanced when enactment of this condition includes the following:

- Requiring the development of improvement plans in all schools (either district- or school-developed). (9+)

Excerpt: *The school improvement plan is a requirement that we all have to do which lays out staff development and the plan for school improvement.*

- Clear school-improvement goals aligned with state and district standards. (7+)

Excerpt: *But ...[the school-improvement plan] is campus-based. ... We have to align it with the district's improvement plan.*

- School improvement plans aligned with district improvement plans. (7+, 1-)

Excerpt: *The district and the school board have sent down a five-year goal for us. It's to improve academic achievement for each and every child, especially in the area of literacy and math.*

- In cases of school-developed improvement plans, district provision of a procedure for the development of the plan. (6+)

Excerpt: *We're in a five-year cycle. We involve teachers, administrators, business people, parents, community people, and we set forth a plan of how we can improve our schools. The process begins with parent surveys.*

8. *Relations with schools and stakeholders (district, board, union, school).* This condition elicited positive responses from 16 principals and negative responses from 4. Enactments of this condition positively associated with principal efficacy emphasize district sharing of key decisions with administrative staff members. In particular principals emphasized the importance of listening to staff members, staying in touch with them, involving principals and teachers in the writing of school plans, budgeting for implementation of those plans, and field-testing new programs. A number of principals also pointed to the small size of their districts as an important contributor to positive district-school relations. In smaller districts, they noted, district leaders were more likely to be in touch with the challenges principals and teachers face.

Principal efficacy is undermined, principals said, when districts neglect to provide adequate information for schools and parents about expectations from the state level. Insufficient information leaves them in the difficult position of having to explain requirements over which they have no control.

Almost all comments from principals focused on district-school relations. Not surprisingly, principals had little to say about board-district relations.

In sum, according to our evidence, principal efficacy is enhanced when enactments of this condition include the following:

- Encouragement for communication among principals, across schools, and provision of opportunities for this to occur. (10+, 1-)

Excerpt: *Monthly meetings really looking at our school-improvement plan and having the opportunity to visit with other schools and talk with them, to share ideas and find out what's worked in one school that we might be able to look at as a possible intervention.*

- Flexibility for schools in the implementation of district initiatives. (9+, 4-)

Excerpt: *I have a lot of autonomy as far as what kind of staff development I do for my own teachers on my campus ... and I make a lot of decisions with my team.*

- District staff keeping themselves well informed about school programs, priorities, initiatives, and programs. (6+, 1-)

Excerpt: *[The district listened] ... to the concerns of the teams. ... We felt that there was a need to kind of look at some parts of the instructional parts of things. ... So they came out and helped make that happen.*

- Significant opportunities for principals and teachers to be involved in decisions at the district level. (4+)

Excerpt: *That is certainly a team that works at the district level and then that framework of curriculum comes back to our level and then our individual teams and departments work on it has well.*

9. *District policy governing school choice.* This is the second condition we added to Anderson's original list. It elicited eight responses from principals who identified instances in which a change in district policies had affected their efficacy negatively.

The evidence shows that school-choice policies can create significant challenges and have adverse effects on principal efficacy. Creating an open choice policy, one principal recounted, meant that his school, serving a relatively stable group of local students quite well by all accounts, suddenly found itself serving students from a radius of about 14 miles. Another principal described how his school had changed "overnight"—also from serving a fairly stable student population to a highly diverse group of students from the entire district, including members of more than 30 gangs.

In sum, according to our evidence, principal efficacy is enhanced when enactment of this condition includes the following:

- The district helps schools respond to rapid and dramatic changes in curriculum and student population. (8-)

Implications for Policy and Practice

Principal efficacy is a key link in the chain joining successful district leadership with student learning and district conditions have an important influence on such efficacy. Five implications emerge as a result:

1. District leaders should establish and maintain a district-wide focus on student achievement and instruction. Efficacy is enhanced when the district provides human and financial resources to assist schools in achieving those high expectations.
2. Districts encourage teamwork and professional community by including both principals and teachers in district-wide decisions that directly impact their work.
3. Districts should aim to provide stable district leadership as a contribution to principal efficacy.
4. District hiring policies should allow principals to select teachers they believe to be outstanding choices for their own school contexts.
5. Because principals have greater efficacy when districts have targeted and phased focuses for improvement, districts should require the development of improvement plans in all schools, with improvement goals expected to be clear and aligned with state and district standards, but with considerable discretion left to the school to determine the paths to goal achievement.

2.4 Ensuring Productive Leadership Succession

Key Findings

- On average, schools experience fairly rapid principal turnover: about one new principal every three to four years.
- Rapid principal turnover has moderately negative effects on school culture.
- Rapid principal turnover seems not to have much effect on classroom content or instruction.
- Rapid principal turnover explains a modest but significant amount of variation in student achievement across schools.
- Coordinated forms of leadership distribution have the potential to mitigate at least some of the negative consequences of rapid principal turnover.
- Principals newly assigned to schools who initially work within the existing culture of their schools, rather than attempting to quickly, substantially change it, are more likely to avoid negative turnover effects.

Introduction

Our analysis of principal turnover and its effects appears in Part Two of our final report because principal turnover is fostered in part by district policies. Some districts, for example, still have policies requiring regular principal rotation.¹⁹³ Many districts now have increased accountability requirements for schools and principals to the point where potential candidates may be deterred from applying for leadership positions.¹⁹⁴ Also, it is typically the district's responsibility to find replacements for departing principals, whatever the reasons for departure. Principal turnover is a problem districts help to create, and so must help to resolve.

While principal turnover is inevitable in every school, too rapid turnover—or succession—is widely thought to present significant challenges to districts and schools. Many districts, for example, struggle to find suitably skilled and experienced principals, partly because of the above-average replacement rates required by a bulge in the proportion of incumbents currently becoming eligible for retirement. It is far from a trivial problem. Schools experiencing exceptionally rapid principal turnover, for example,

¹⁹³ Macmillan (2000).

¹⁹⁴ Blackmore (1996).

are often reported to suffer from lack of shared purpose, cynicism among staff about principal commitment, and an inability to maintain a school-improvement focus long enough to actually accomplish any meaningful change.¹⁹⁵

Our efforts to learn more about the nature and consequences of rapid principal turnover have been guided by five questions:

- How frequently does principal turnover occur in the average school?
- Does principal turnover significantly affect conditions across the school and in classrooms?
- Does principal turnover significantly affect student achievement?
- Do coordinated forms of distributed leadership, as some evidence suggests, have the potential to reduce negative influences arising from frequent principal turnover?
- What, if anything, can incoming principals do to minimize the negative effects of rapid principal turnover?

Prior Evidence

School and Classroom Conditions Influenced by Rapid Turnover

For the most part, school leaders influence students indirectly. Efforts to increase leaders' influence on students will therefore depend on identification of factors that mediate what leaders do. Rowan's (1996) framework identifies one promising set of mediators. This framework suggests that the performance of teachers—clearly the most powerful mediator of leaders' influence on students¹⁹⁶--is a function of their abilities, motivation, and the nature of the settings (or conditions) in which they work. It follows that leaders' influence on students will depend on their success in improving teachers' abilities, motivations, and working conditions. In light of this background, we focus here on teachers' school and classroom working conditions, exploring the degree to which variations in the rapidity of principal turnover may influence school culture, as well as curriculum and classroom instruction.

We know from prior research that the impact of school leadership on student achievement is mediated by school culture: shared values, norms, and contexts.¹⁹⁷ Healthy school cultures correlate strongly with increased student achievement and motivation.¹⁹⁸ School leaders who build productive "cultures of change"¹⁹⁹ can enhance

¹⁹⁵ Fink & Brayman (2006).

¹⁹⁶ Heck (2007).

¹⁹⁷ Deal (1993); Nanavati & McCulloch (2003); Senge (1990); and Stoll (1999).

¹⁹⁸ Macneil, Prater & Busch (2007); Stolp (1994).

¹⁹⁹ Patterson & Rolheiser (2004).

teacher motivation, build teacher capacity, promote teacher efficacy,²⁰⁰ and create the professional unity and cohesion required for effective instruction²⁰¹ and student success.²⁰² Principals have a strong effect on school culture and on classroom conditions—which, in turn, affect student success.²⁰³

Principal Turnover Effects

Evidence about principal turnover often associates it with negative consequences. Grusky (1963) and Bruggink (2001) report that changing principals disrupts staff members' focus on improving student achievement. Others argue that principal turnover disrupts school change processes when a leader who supports a project leaves and is replaced by a leader with different priorities;²⁰⁴ when a “charismatic principal departs who had 'radically transformed' the school in four or five years”;²⁰⁵ or when there is a poor “fit” between the leader and school.^{206 207}

While principal turnover often has negative consequences, the outcome is not consistently negative. Partlow (2004), for example, argues that student achievement operates independently of changes in school leadership. Miskel and Owens' (1983) study of 89 schools in the midwest region of the U.S. found that principal succession had no significant effects on staff members' job satisfaction, communication, instruction, school discipline, or school climate. But there is considerable evidence to the contrary.

Leadership turnover does not have to occur every year or two to be problematic. Even in cases where a principal's tenure extends over a period of several years, teachers may remain alienated when principal turnover is the result of a district leadership rotation policy.²⁰⁸ Teachers may become cynical and resistant to change because of the “revolving door syndrome”—the uncertainty and instability turnover causes, and the perception of the new leader as a “servant to the system.”²⁰⁹

Some teachers develop a deep distrust of the new leader's loyalty, suspecting that he or she is more committed to career advancement than the long-term welfare of the school and community. Under conditions of regular principal turnover, teachers learn to “wait them out.”²¹⁰ That is, teachers maintain barriers between themselves and new leaders, ensuring that their school's culture becomes self-sustaining, “immunized,” and impervious to change instigated by those in formal leadership positions.²¹¹

²⁰⁰ Tschannen-Moran, Woolfolk-Hoy, & Hoy (1998).

²⁰¹ Stewart (2000).

²⁰² Sarason (1982); Schein (1993).

²⁰³ (E.g., Ross & Gray (2006); Waters, Marzano & McNulty (2003).

²⁰⁴ Corbett, Dawson, & Firestone (1984).

²⁰⁵ Fullan (1992).

²⁰⁶ Davidson & Taylor (1998, 1999); Ogawa (1995).

²⁰⁷ The notion of “fit” between leader and school is central to district administrators' decision-making concerning principal placement.

²⁰⁸ Macmillan (2000).

²⁰⁹ Reynolds et al. (2008).

²¹⁰ Hargreaves et al. (2003).

²¹¹ Macmillan (2000); Macmillan, Meyer & Northfield (2005).

Frequency of Principal Turnover

Nevertheless, principal turnover is nevertheless inevitable in all schools. It is therefore important to ask about the optimum frequency of turnover: how frequent is too frequent? How long is too long for a principal to stay in one school? We have been guided by two theoretical perspectives, stage theory and change theory, in our efforts to answer these questions.

Stage theory conceptualizes *leadership succession* as a process with distinct phases and demands, rather than a singular event.²¹² Patterns in the process have been identified, and the ways in which each phase of the succession process shapes and influences the outcome of subsequent phases have been described.²¹³ Most stage models predict that it takes at least five to seven years to build relationships of trust that can serve as a foundation for movement to later stages of the succession process—“consolidation and refinement,” in Gabarro’s (1987) terms. According to this view, principals need to be in their schools for about five years in order to have a positive impact. After five years, the principal’s work may continue, but continuity from then on does not seem to be related to continued improvement.

Change theory includes a concept of change as a process of initiation or adoption, implementation, and institutionalization or continuation.²¹⁴ According to Fullan (1991), all successful schools experience an “implementation dip,” a drop in performance and confidence when people are faced with innovations that demand new knowledge, skills, strategies, and relationships. People who are experiencing fear and anxiety about their capacity to manage change require leaders they can trust, as well as leaders who are empathetic and socially skilled.

Fullan asserts that, while there is no standard formula for changing the culture of an organization, sustainable improvement requires several years of effort to work through complex cultural issues such as resistance to change and acculturation of the new leader.²¹⁵ Turnover that occurs every two or three years makes it unlikely that a principal will get beyond the stages of initiation and early implementation. Like stage theory, then, change theory also argues that leader-tenure much beyond three years is necessary if significant improvements are to occur in response to a principal’s initiatives.

This leaves us with questions about the upper limit of a principal’s tenure in a school: is there a “best by” date for principals, beyond which they should move on, or be moved on? Does a principal become stale or stagnant if he or she remains in the position for too long? We have little hard evidence bearing on this question, but that fact has not prevented some districts from creating policies reflecting the professional experiences of their staffs. District superintendents, for example, often justify their principal rotation policies as a means of reinvigorating school administrators who seem to reach their peak

²¹² Hargreaves et al. (2003).

²¹³ Miskel & Cosgrove (1984); Miskel & Owen (1983); and Ogawa (1991).

²¹⁴ Fullan (1991, 1993).

²¹⁵ Fullan (1991); Hargreaves & Fink (2006).

effectiveness after five to seven years.²¹⁶ Realistically, there is bound to be enormous variation among individual principals, suggesting that districts should avoid a one size fits-all approach to principal succession.

Distributed Leadership

Evidence about the effects of principal turnover assumes that a considerable proportion of the leadership in schools is delivered by the principal. But suppose school leadership was more dispersed or distributed. Would more leadership distribution within a school moderate the effects of rapid principal turnover, as some are now suggesting?²¹⁷ Part One of this report reviewed research and theory about distributed leadership in some depth, as well as reporting new evidence on the concept. For present purposes, then, we describe only the conceptual choices we have made for this sub-study of principal turnover.

Among the many different conceptions of leadership distribution in the literature,²¹⁸ we have chosen to view it through a lens developed by Leithwood, Mascal, and Strauss (2009). Leithwood et al. describe four patterns of leadership distribution observed in schools:

- *Planful Alignment.* In this pattern, leaders' tasks and functions result from prior, planful thought by organizational members, and functions are rationally distributed in ways comparable to Gronn's (2009) holistic notion of "institutionalized practice."
- *Spontaneous Alignment.* In this pattern, leadership tasks and functions are distributed with little or no planning, and tacit or intuitive decisions determine who should perform which leadership functions. Fortuitous, positive, short-term working alliances evolve.
- *Spontaneous Misalignment.* Here there are disjunctions among leadership functions, causing unpredictable outcomes and negative effects on short- and long-term organizational effectiveness and productivity.
- *Anarchic Misalignment.* This pattern is similar to the condition Hargreaves and Fink (2006) describe as anarchy: members of the organization reject or compete with one another in making claims of leadership regarding decisions, priorities, and activities.

Recent scholarship suggests that leadership distribution may moderate the effects of principal turnover on school culture. Hargreaves and Fink (2006) conclude that the post-succession process is best managed when the departing leader leaves a legacy of distributed leadership marked by shared vision, investment, and capacity that ensures the sustainability of school improvement initiatives. This leads us to hypothesize that in times of frequent principal turnover (leader changes every one, two, or three years)—involving leaders shaped by different experiences, priorities, and leadership styles—

²¹⁶ Boesse (1991); Rebhun (1995).

²¹⁷ Harris (2009).

²¹⁸ E.g., Gronn (2002); MacBeath (2009); and Spillane (2006).

teachers are encouraged (or forced) to take leadership into their own hands, and to develop some stability by means of a self-sustaining professional culture that operates independently of the principal. The result then will be distributed leadership in one form or another.

Where teacher leadership evolves strategically (planned and aligned with school goals), a self-sustaining culture can become both collaborative and productive. When leadership distribution is neither planned nor aligned, then the self-sustaining culture drifts, gradually loses its collective sense of vision and purpose, and becomes increasingly balkanized; each teacher focuses on his or her classroom, works in relative isolation from colleagues, and takes responsibility only for his or her own work. The result is an ineffective organization of “neglect” and “anarchy,” where student achievement may remain unchanged, or even deteriorate.

New Evidence

Method

We used quantitative and qualitative methods to answer the five questions described in the Introduction to this section. Data from quantitative studies derive from responses to questions we posed about average principal turnover rates, effects on school culture, curriculum, and instruction, and student achievement. Data from qualitative studies derive from responses to questions we posed about the potential for some patterns of distributed leadership to mitigate the negative effects of rapid principal turnover, and what, if anything, incoming principals might do, to minimize negative turnover effects.

Quantitative evidence. For this evidence we examined responses to 36 of the 104 items included in the first teacher survey. The construct for *school culture* comprises the following seven items, ranked on a 6-point scale, using the stem *To what extent do you agree or disagree with the following statements*:

- Disruptions of instructional time are minimized.
- Most teachers in our school share a similar set of values, beliefs, and attitudes related to teaching and learning.
- Students feel safe in our schools.
- In our school, we have well defined learning expectations for all students.
- Students in our school meet or exceed clearly defined expectations.
- We provide opportunities for students to discuss the effects of intolerance on their lives.
- Our student assessment practices reflect our curriculum standards.

The construct for *classroom, curriculum and instruction* comprises the following five items, ranked on a six-point scale, using the same stem:

- I have sufficient written curricula on which to base my lessons.
- My instructional strategies enable students to construct their own knowledge.

- I maintain a rapid pace of instruction in my classes.
- I feel adequately equipped to handle student behavior in my class.
- Our school/district provides a rigorous core curriculum for most of our students.

The achieved sample for this sub-study was 2,570 teachers (a 78% response rate) from a total of 80 schools in which four or more teachers completed usable surveys and for which usable student achievement data were available. The principal survey provided data on the number of principals in the school over the past 10 years for those same 80 schools.

To measure student achievement across schools, we collected data from state websites. These data were school-wide results on state-mandated tests of language and mathematics at several grade levels over three years (2003 to 2005). For purposes of this study, a school's student achievement level is represented by the percentages of students meeting or exceeding the proficiency level (usually established by the state) on language and mathematics tests. We averaged these percentages across grades and subjects in order to increase the stability of scores, producing in a single achievement score for each school for each of three years.

Our data on student achievement for these schools covers only the most recent three years, yet the turnover of principals is measured over the past 10 years. The premise is that there would be a cumulative effect of principal turnover during this time, which would appear as an overall low level of achievement in the schools in the most recent three years.

Qualitative evidence. From the 40 schools included in the first round of site visits, we selected the four with the highest principal-turnover rates as case study schools, based on the principal survey question about the number of principals that those 40 schools had had over the past 10 years. Each of these schools was located in a different state, and the states were widely distributed geographically. We then conducted NVivo coding searches within the transcripts of the interviews with the principal and five teachers in each of the four schools.

Principal Turnover: Frequency and Effects on Schools, Classrooms, and Students

Table 2.4.1 reports the means, standard deviations, and scale reliabilities (Cronbach's alpha) of variables for this sub-study. As the first row in this table indicates, the average number of principals in the school over the past 10 years was 2.78, for an average length of tenure of 3.6 years per principal. The standard deviation for this measure is a relatively large (1.34).

Table 2.4.1
Summary of Survey Results
(N= 80 schools)

Variables	Mean	SD	Reliability
Principal Turnover	2.78	1.34	
School Culture	4.34	.55	.83
Classroom Curriculum & Instruction	4.79	.29	.65

We calculated Pearson’s correlation coefficients to assess the relationships between meditating variables, the independent variable (the number of principals in the school in the past 10 years), and the dependent variable (student achievement). Table 2.4.2 summarizes these relationships. Relationships among principal turnover and measures of school and classroom conditions are negative.

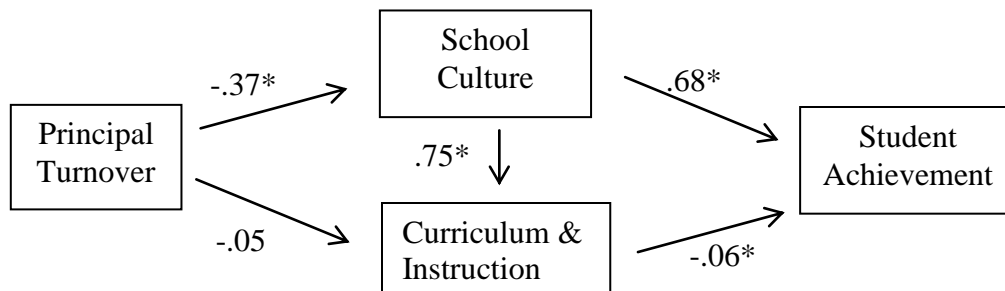
Table 2.4.2
Relationships among the Variables

Variable	School Culture	Classroom Curriculum & Instruction	Student Achievement
# Principals in last 10 yrs	-.37*	-.33*	-.17
School Culture		.77**	.63**
Classroom Curriculum & Instruction			.46**

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Principal turnover is moderately and negatively correlated with school culture and with classroom curriculum and instruction; it has a weak negative relationship with student achievement. School culture is strongly related to both curriculum and instruction and student achievement; curriculum and instruction is moderately related to student achievement.

Figure 8 summarizes the results of a path model (using LISREL) we used to explore the relationships among these variables more precisely.



RMSEA = .00
 RMR = .02
 AGFI = .96
 NFI = .99

Total Effects on Achievement
 Turnover: -.24*
 School Culture: .64*
 Curriculum & Instruction: -.06*

Figure 8: Testing the mediated effects of principal turnover on student achievement

This model is a good fit with the data (RMSEA = .00; RMR = .02; AGFI = .96; NFI = .99), and it explains 41% of the variation in student achievement. The total effects of principal turnover explain 24% of the variation in student achievement. Principal turnover has significant and moderately negative effects on school culture (-.37), although school culture has moderately strong, significant, effects on student achievement (.68). The effects of turnover on curriculum and instruction are insignificant, and the measure of classroom curriculum and instruction is negatively, but very weakly, related to student achievement. It is interesting to see that the partial correlations between these mediating variables and student achievement are strong and positive, but the addition of principal turnover to the model reduces the effect of curriculum and instruction on student achievement to a very low level (-.06).

In sum, results suggest that principal turnover has significant negative effects on student achievement. These effects are mediated more by school-level than classroom-level conditions. The weaker impact of principal turnover on classroom variables might suggest that teacher classroom practice is in some way buffered from direct effects of changes in principal leadership. We speculate that teachers may continue to feel secure in their classrooms, regardless of the school culture around them. While buffering of this sort limits the negative effects of principal turnover, it may also limit positive effects of a principal's improvement efforts.

Leadership Distribution and Leader Turnover Illustrated

Given the significant influence of principal turnover on student achievement, mediated primarily by school culture, we developed four case studies to examine this

dynamic in greater detail and to learn what part patterns of distributed leadership play in the relationships. The four schools are profiled below.

Culbertson Elementary School

Culbertson is an urban elementary school with an enrollment of just over 600 students, almost all of whom meet state achievement expectations on the grades 3-5 standardized tests in reading, science, and mathematics. At the time of our study, three principals had been at the school in the last three years, and the current principal was promoted to the post from a district intern position. High principal turnover had become a challenge for the district, in part because a new state retirement policy had induced 20% of the district's principals to retire in the year that a new option was announced. To deal with the challenges of principal succession, district leaders established a number of support mechanisms to help new principals acclimatize themselves in their new jobs; these included monthly meetings and a mentoring program with retired principals.

Principal turnover in Culbertson had no measurable impact on student performance, positively or negatively. From 2003 through 2006, the percentage of students meeting or exceeding state norms held consistently to a range in the high nineties across all grades and subjects.

The principal three years earlier had explicitly encouraged teachers to assume leadership roles in the school, in accordance with district policies that supported the designation and implementation of formal teacher-leader positions. The principal also saw to it that this leadership distribution was both planful and well aligned with the school's goals. By the time of our study, leadership had become distributed to a considerable extent, and teacher-leaders were able to help introduce incoming principals to the school culture. Since student achievement was not a source of concern in the school, there was little pressure to bring about any radical changes in teaching and learning. Consequently, new principals did not feel compelled to innovate either rapidly or radically.

A *planful alignment* pattern of leadership distribution had stood the staff in good stead through two succeeding principals. The teachers were able to work together, share the leadership for that work, and sustain the learning of their students, despite changes in principals. The current principal seemed to be in tune with this approach to distributed leadership.

Molina Elementary School

Molina is a small elementary school in an urban community. At the time of our study, 31% of the students in the district qualified for free and reduced-price lunches, and the school had a 35% non-white (mostly Hispanic) population. Student achievement scores were uneven across grades and subjects: strong in grade 3, but weak in grade 4; strong in reading but not in writing. In the three years for which we had data, however, overall levels of achievement had been improving.

State policy on principal retirement was in flux at the time of our study. This was a situation that was encouraging some principals who were facing an uncertain future to get out "while the getting is good." Over the five years prior to our study there had been a high level of retirements across the district, and Molina had not been immune to this trend, having had four principals in that period of time. District office staff remarked on early retirement as an ongoing problem and a significant source of stress on the system's capacity to train and replace its district and school leaders. The pressures of early retirement—as many as 20% of the total number of principals in the district changing in any one year—had spawned district initiatives to address the turnover problem. As a result of a District Literacy Initiative, there had been a structural shift to create teacher-leader Literacy Coaches in each school. Molina had five of these Literacy Coaches, with an additional Literacy Coach position scheduled for the next year.

Cultural and emotional turmoil was apparent in Molina because principal turnover had been accompanied by fundamental changes in philosophy and leadership style. The four principals in five years at Molina had had different personalities and insufficient time to establish trust and rapport. Long-serving support-staff members—familiar to teachers, parents, and students—were able to take on certain leadership roles in light of the annual change of principals. This case provides, accordingly, some evidence for our expectation that greater distribution of leadership would ameliorate some negative effects of rapid principal turnover. But life in schools is not shaped by a single variable. In the case of Molina, a high rate of teacher turnover exacerbated the effects of rapid principal turnover, thereby muting the potential values associated with more teacher leadership.

Molina's pattern of distributed leadership could best be described as *spontaneous misalignment*. There was no planned effort to share leadership, nor was there a sense that leadership as it evolved was being aligned with school goals. Despite the best efforts of the teachers to provide leadership for their school, along with efforts by the district to establish formal teacher-leadership positions, the combined effects of frequent principal turnover and frequent teacher turnover made it impossible for this school to sustain any momentum in its improvement efforts.

Blake Elementary School

Blake is a small elementary school in an inner-city district. At the time of our study, a high proportion of its student population was black, and a significant proportion of the community lived below the poverty line. Student achievement was not high; achievement levels in grade 3 and 4 Communication Arts and grade 3 Math tests were at or above state averages, but results for grade 4 and 5 Math and grade 5 Communication Arts remained below state averages. The number of children achieving at the state standard in literacy, however, had been increasing steadily over the past three years.

Three administrators had been appointed to Blake in seven years. There had also been a significant number of new senior administrators in the district in the past two years: a new superintendent and three new directors at the district level, and three new administrators at the school level, across a total of seven schools.

Blake's story has much to do with a charismatic principal whose vision for a Professional Learning Community (PLC) had shaped the school's identity, structure, and culture. While the principal in position at the time of our study had not initiated the PLC concept, she had chosen to carry on with it as the central feature of the school's shared vision. Thus, the PLC provided the foundation for cultural and structural continuity from the previous principal to the current principal.

Principal turnover did not result in cultural chaos or teacher alienation at Blake, because there was a clear and planned focus for school culture and instruction. This school-wide focus survived rapid principal turnover, partly because collaborative structures were well established and accepted and partly because the new principal's philosophy and practices supported the existing school culture. Blake therefore provides another case of *planful alignment* in the distribution of leadership. Teachers at Blake had developed a shared vision for the school and were able to sustain it despite the change in leadership. Indeed, the new principal's support for the existing vision became a key element in further developing a positive culture in this school.

Rhodes Middle School

Rhodes Middle School is located in a low-income community; at the time of our study, 13% of the population fell below the poverty line, and 60% of the Rhodes students qualified for free or reduced-price lunch. Four different principals had served at Rhodes in four years, and the student and teacher populations were highly transient. The first of the four principals believed strongly in site-based management and fostered a culture in which teachers learned to rely on their own leadership to get things done. There was an autonomous teacher culture in which each staff member was encouraged to take personal responsibility for her or his own classroom practice, but not much else. Collaboration was not encouraged. Student achievement, however, had been consistently high over the previous three years.

While many teachers at Rhodes seemed satisfied with their autonomous culture and its contribution to sustaining their efforts through frequent principal turnover, the principal current at the time of our study saw professional entrenchment and barriers to administrator influence. This new principal set about changing the culture of the school, without going so far as to dismantle its existing decision-making structures. She aimed for a balance of authority between herself and the staff, given the instability caused by frequent principal succession. She set out to establish a collective focus on instructional practice and data-driven decision-making.

The school seemed to be poised on the cusp of moving from traditional forms of teacher autonomy to a more planful pattern of leadership distribution. The approach of the new principal was more directive than collaborative. But her intention was to create a more collaborative culture, with teachers exercising more leadership across the school as they learned to work together.

Across the Cases

All four schools experienced high rates of principal turnover in the time in question—from a new principal every year, for three or four years, to one every two years, for seven years. In all four schools there had been some attempt at distributing leadership, but each school approached distribution differently, as the culture varied from school to school. While the four schools seem to have little in common beyond rapid principal turnover, two schools found ways to deal productively with changing leadership, while two did not.

Culbertson took a deliberate approach to the distribution of leadership, driven by a principal and district leaders committed to collaborative work and planfully aligned leadership distribution. Blake built a strong professional community, also producing planfully aligned patterns of leadership distribution capable of surviving changes in leadership. In both cases, leadership was distributed among a number of teachers. Despite frequent changes in principals, the supportive cultures developed in these schools continued to thrive.

In the other two schools, there was less success with leadership distribution. In Molina, the district's attempts to foster teacher leadership as one response to frequent principal turnover ran afoul of frequent teacher turnover. In Rhodes, the efforts of an earlier principal to foster a high degree of individual teacher autonomy had been sufficiently successful that the principal in place at the time of our study was experiencing considerable difficulty in her efforts to promote collaboration and more leadership distribution. Teachers still remained independent, in a strong culture of individual isolation.

In sum, these cases suggest the following:

- Leadership distribution has the potential to moderate the negative consequences of rapid principal turnover.
- Principals have significant leverage in the distribution of leadership across their schools.
- Planfully aligned patterns of distributed leadership seem likely to contribute most to school improvement efforts once they are established.
- The challenge of fostering leadership distribution is greatly influenced by the existing culture of the school; autonomous teacher cultures are strong sources of resistance to leadership distribution efforts.
- While rapid principal turnover has negative effects on student achievement “on average,” some individual schools are able to manage rapid turnover in ways that prevent achievement decline. It seems very unlikely, however, that student achievement will improve under most conditions associated with rapid principal turnover.

Implications for Policy and Practice

Three implications for policy and practice emerged from this section of our study.

1. Districts should aim to keep most principals in their schools for a minimum of four years, and preferably five to seven years. Assuming the principal is working productively with staff and other stakeholders on improving the school, more frequent changes in principals typically results in wasted energy, dissipation of scarce resources and considerable skepticism on the part of teachers that they will receive the support they need when the change process begins to confront the most difficult challenges.
2. Under conditions of rapid principal turnover, districts need to encourage incoming principals to understand and respect the school-improvement work in which staff members have previously been engaged. Incoming principals will likely have a smoother transition if they see their job as continuing and refining that work. Principals assigned to schools identified as being in need of being “turned around” are clearly exempted from this recommendation.
3. Incoming principals should not have the sole responsibility to encourage distributed leadership in schools that have previously experienced rapid principal turnover. Under such conditions, districts need to directly encourage and support planfully aligned forms of leadership distribution, providing training and support to staff members in carrying out shared leadership functions. District leaders have a responsibility to help ensure a smooth transition from one principal to the next. This can be done by clarifying the district’s expectations for the job to be done by the incoming principals, and by participating with teachers and the new principal in initial discussions about expectations for the new principal’s work. On their own, teachers are in a weak and sometimes risky position with the incoming principal, to argue for continuing attention to the initiatives they have been working on with the outgoing principal and that are showing signs of progress.

2.5

Data Use in Districts and Schools: Findings and Limitations

Key Findings

- District data-use practices have a substantial influence on principals' data-use practices.
- Most principals have and use considerable amounts of evidence about the status of individual students and their student populations.
- Very few principals have systematically-collected evidence about the school and classroom conditions that would need to change for achievement to improve.
- A slim majority of principals process their data in collaboration with their staffs and call on district staff members and others with special expertise to help them with data analysis and use.
- When schools are considered in the aggregate, typical approaches to data use by districts and principals have no measurable influence on student achievement. But variations in data use, specifically in elementary schools, explain a significant amount of variation in student achievement.
- Leaders in high data-use schools have clear purposes for analyzing data. They engage their staff collectively in data analysis, build internal capacity for this work, and use data to solve problems, not simply to identify them.
- Principals can play a key role in establishing the purposes and expectations for data use. They can provide structured opportunities (collegial groups and time for data use), sessions for data-use training and assistance, access to expertise, and follow-up actions. Where principals do not make data use a priority—where they do not mobilize expertise to support data use and create working conditions to facilitate data use in instructional decision making—teachers are not likely to do it on their own.

Introduction

A decade ago, it was disconcertingly easy to find education leaders who dismissed student-achievement data and systematic research as having only limited utility for improving schools or school systems. Today, we have come full circle. It is hard to attend an education conference or read an education magazine without encountering broad claims for data-based decision making.

Against a broad background of increased interest in educators' uses of data, we were motivated to pursue this strand of our research by five broad issues. First, we aimed to clarify state and district approaches to data use. Second, we wanted to better understand the relationship between districts' and principals' orientations to evidence-based decision making. Compelling evidence now suggests that this relationship is a central explanation for the how data are used in schools.²¹⁹ Third, while principals and teachers everywhere are being admonished to use more and different data in their decision making,²²⁰ we were curious to know what their typical response to data use is.

Our fourth purpose was to better understand patterns of data use in schools where evidence-based decision making had become a priority. Finally, we wanted to know whether typical approaches to data use by districts and principals have any discernable influence on student achievement. Almost all accountability-driven, large-scale reform efforts assume that greater attention by districts and schools to systematically collected data is a key lever for improving student performance. But evidence in support of this assumption is thin and mixed.²²¹ Perhaps, we surmised, there are important conditions to be met or thresholds to be surpassed before such data use matters.

Current scholarship highlights educators' increasing reliance on data use at the school and district levels. These reports often are based on case studies of one or a few sites, chosen to exemplify positive stories of data use.²²² Studies of this sort provide insights about uses of data, organizational conditions (e.g., leadership, resources, professional trust between teachers and between teachers and administrators) conducive to data use, and ways in which data use can evolve and become more comprehensive and institutionalized in ongoing work routines over time. The innovations and activity surrounding data use are, however, quite recent; and the brief track record to date makes it difficult to be confident about the effects of data use, particularly effects on student achievement.

Prior Research

We framed data collection and analysis for this section of our research according to five variables about which there is considerable prior evidence. In this framework, summarized in Figure 9, *student achievement* is the dependent variable, influenced most directly by the *decisions and actions* of school staffs, especially principals. *Types of evidence available to the school* (often from the district) and existing *conditions influencing how data are interpreted and used* are variables shaping the *processes for interpreting evidence* by principals and their colleagues in their *decisions and actions*. This framework acknowledges the reciprocity of relationships among these variables. For example, the outcome of data interpretation processes might not be actions or decisions aimed directly at student learning; instead, it might be a search for additional types of

²¹⁹ Wohlstetter, Datnow & Park (2008).

²²⁰ E.g., Linn (2003).

²²¹ Koretz (2005).

²²² See, e.g., school and district case study examples in Mandinach & Honey (2008).

evidence considered crucial to decision making, or push-back on some external influences on data use considered unhelpful by principals and teachers.

Types of Data (Breadth, Nature and Patterns of Use)

Breadth of data. Our conception of variation in the breadth of data used by principals took, as its point of departure, the framework guiding our overall project. Principals' actions or practices are determined by their thoughts, values, and feelings. These internal states have antecedents: principals' own past experiences, knowledge, and beliefs, as well as their interpretations of the consequences of their current practices for the local and wider contexts in which they find themselves. Yeh (2006) has adopted a similar interpretive perspective in his research on teachers' response to data from state tests, with a focus on teacher attitudes, in particular.

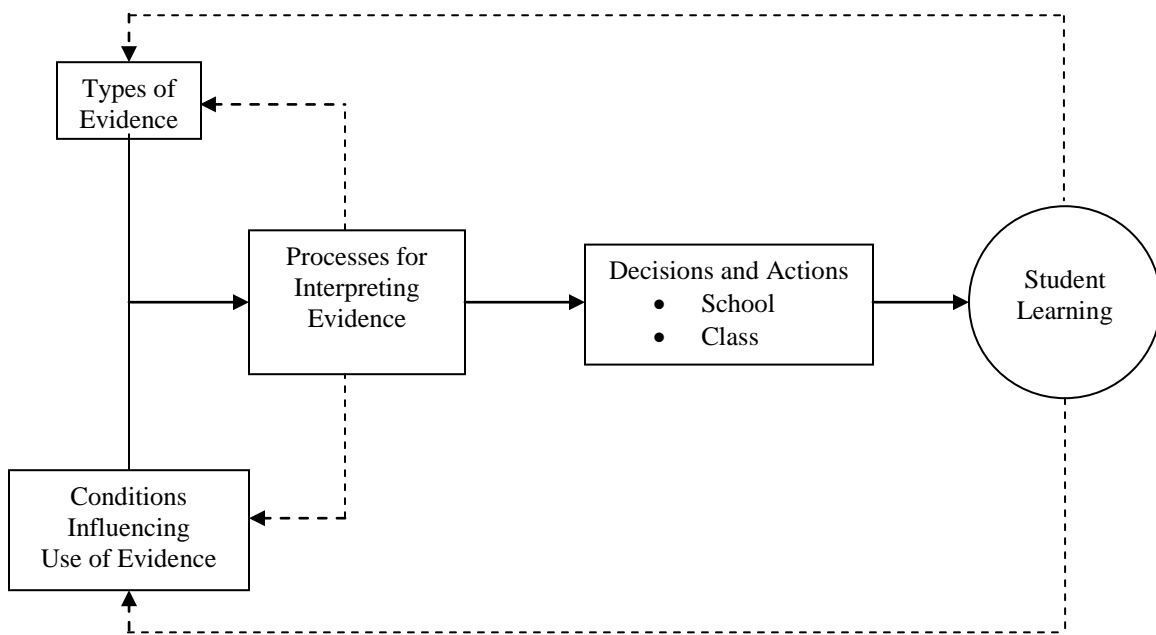


Figure 9: Framework for understanding evidence-informed processes

The framework for our overall project also points to the mostly indirect influence of principals' actions on students and on student learning.²²³ Such actions are mediated, for example, by school conditions such as academic press,²²⁴ with significant consequences for teaching and learning and for powerful features of classroom practice such as teachers' uses of instructional time.²²⁵ Evidence-informed decision making by principals, guided by this understanding of principals' work, includes having and using a broad array of evidence about many things: key features of their school's external

²²³ e.g., Hallinger (1996).

²²⁴ Goddard et al. (2000a).

²²⁵ Resnick et al. (2007).

context; the status of school and classroom conditions mediating leaders' own leadership practices; and the status of their students' learning.

Nature of data (informal vs. formal). The admonition to be “more evidence-based” should not be taken literally. It is certainly not the case that teachers and administrators have been making evidence-free decisions for the past hundred years. But the evidence available to teachers and principals has often come from their impressions of “ordinary workplace practice”; these typically narrative accounts of experience “constitute a pervasive feature of workplace discourse and a resource for workplace learning” (Little, 2007, p. 220).

We can't say a priori whether shifting the weight of emphasis from informal to formal evidence for decision making will improve schools; it is an empirical question.²²⁶ The current emphasis on using student performance data to guide improvement efforts also calls for greater attention by those in schools to measurable patterns of student performance at the school level, or by student sub-groups, in addition to the conventional interest in individual student needs and progress.

Furthermore, the systematically collected evidence available to most schools today is almost entirely evidence about the current status of student achievement. In some schools this consists almost entirely of externally mandated test data gathered toward the end of the school year. While information about achievement is obviously critical for schools, it has almost nothing to say about the causes of such achievement or the strategies that might be useful for improving achievement levels. Furthermore, for data of this sort, schools rely mainly on results from large-scale national or state testing programs. Most of these programs focus only on a narrow band of objectives in the formal curriculum; they have unknown levels of reliability at the school level; they are cross-sectional in nature; and the results they yield become available to schools only after lengthy time delays.^{227 228}

Patterns of data use. Based on a study of data-driven decision making in 36 schools, Ikemoto and Marsh (2007) developed a conceptual framework of four models of school data use, varying by the complexity of the data used and the complexity of the analysis and decision making in question. They labeled these models basic (simple data, simple analysis, simple decision making), analysis-focused (simple data, complex

²²⁶ e.g., Heritage & Yeagley (2005).

²²⁷ Knapp et al. (2007); Leithwood & Levin (2005).

²²⁸ Computerized on-line data information systems are increasingly available for use by educators. These systems store and provide easy access to a wide range of standardized and classroom-based assessment data on students as individuals and in groups, as well as data about student attendance and demographic variables. Indeed, in several of our site-visit districts, systems of this type were introduced in the final years of our study. Beyond selected district or school case reports of exemplary use by developers and local implementation champions (e.g., Mandinach & Honey, 2008), however, we are not aware of any research that documents how widespread the adoption of these systems is, nor do we know of evidence about the effectiveness of their implementation or their impact on instructional decision-making and student learning on a large scale.

analysis, complex decision making), data-focused (complex types of data, simple analysis, simple decision making), and inquiry-focused (complex types of data, complex analysis, complex decision making). We found these dimensions of data use, if not the archetypes, helpful in comparing data use across our site-visit districts and schools.

Conditions Influencing Data Use in Schools

Ikemoto and Marsh (2007) also have identified a set of school and district conditions likely to support data use in schools. Developing these conditions requires leadership, most obviously from principals,²²⁹ although others might certainly contribute. The conditions include accessibility and timeliness of data; perceived validity of data; staff capacity and support for considering data; time available to interpret and act on the data; partnerships with external organizations for analyzing and interpreting data; and tools for data collection and interpretation (procedures and instruments). Similar conditions fostering data use in schools have been identified by Wilson (2004), Heritage and Yeagley (2005), and Yeh (2006).

From a three-year case study of the uses of evidence related to instructional decision-making at the district level, Coburn, Touré and Yamashita (2009) identified key factors influencing the uses of data. These factors include the congruence of sources of evidence with the prior beliefs of decision-makers, the content knowledge of individuals using data to advocate alternative views, organizational structures that inhibit or promote shared understanding of instructional matters, resource constraints, and the micropolitics of authority and power in decision-making processes. With the exception of micropolitical processes, these factors are similar to several of the conditions described by Ikemoto and Marsh (2007), including perceived validity of data, staff capacity, and organizational resources (e.g., time, contexts for collaborative work).

Certain forms of leadership and organizational culture also may foster data use, particularly when they reflect norms and values supporting careful use of systematically collected data (Ikemoto & Marsh, 2007), creating what Katz and his colleagues (2002) refer to as an “evaluation habit of mind” within schools. Justification for including this condition in our analytic framework can also be found in evidence reported by Louis, Febey, and Schroeder. They found that active efforts “by district-level administrators to mediate sense-making affected teachers’ attitudes toward accountability policies and standards-driven reform” (2005, p. 177). Firestone and Gonzalez (2007) also demonstrate the quite different ways in which data are interpreted and used in schools and districts depending upon whether dominant norms in district culture are oriented to accountability or organizational learning.

Processes Used for Data Interpretation and Decision Making

Approaches to interpreting data vary. Two school leaders having access to the same data may use different approaches for making sense of it, and some approaches will be more productive than others. Ikemoto and Marsh (2007; see *Patterns of data use*, above) provide a compelling case for the hierarchical nature of four such approaches in terms of their value for school-improvement decisions. These approaches vary along five

²²⁹ Firestone & Gonzalez (2007); Wayman et al. (2006).

dimensions, in Ikemoto and Marsh's conceptualization; we summarize these below, along with a sixth dimension we have added.

- *Number of data sources*: Variation on this dimension ranges from a single source (e.g., an annual standardized reading assessment) to multiple sources (e.g., other standardized tests and teacher-created assessments). Justification for considering this dimension can be found in basic accounts of the limitations and biases inevitably associated with any single type or source of data.²³⁰ Knapp and his colleagues (2007) have described several mistakes schools can make if they rely on only one data source.

- *Nature and extent of data analysis*. While Ikemoto and Marsh (2007) acknowledge that, in some circumstances, simple forms of data analysis might be quite appropriate, less obvious but critical underlying explanations for results will sometimes require more complex analysis. Disaggregating data by student groups, for example, is a minimum requirement for pinpointing the potential sources of underperformance among students in many school contexts. External standards or criteria used in the interpretation of data may also add a valuable dimension of complexity.

- *Who is involved in data interpretation and use?* At the least productive end of this dimension, one person (usually the school administrator) does most of the analysis and interpretation and then reports the results to teachers. The most productive end of this dimension entails using multiple participants in data analysis, interpretation, and decision making. Participants may come together in what Wayman and colleagues (2006) call collaborative data teams. These are professional learning communities with access to information about their students' learning. Collaborative structures for making sense of data have been recommended by many others, as well.²³¹

- *Engagement of special expertise*. This dimension considers the nature and extent of engagement by people with expert knowledge from outside the school staff—for example, district staff with technical expertise in measurement or university faculty members with specialties relevant to the content of particular assessments. At the least productive end of this continuum, no specialists are used; at the most productive end, experts are selected to provide assistance for well-defined reasons. The presence or absence of expert knowledge may matter a great deal, regardless of its source. Coburn, Touré, and Yamashita (2009) found, for example, that district-level educators' use of evidence related to instruction was significantly influenced by their own content knowledge about the issues in question (e.g., explanations for low math scores, best approaches to reading instruction).

- *Number of data points*. This dimension focuses on data collected at one point in time or data collected at several points in time. School district officials and principals may consider, for example, evidence collected at one testing date or evidence collected at several points—e.g., data on student growth against expected learning standards throughout the year, and

²³⁰ Brewer & Hunter (1989); Yin (1984).

²³¹ E.g., Earl & Katz (2002); Heritage & Yeagley (2005); and Knapp et al. (2007).

from year to year. Longitudinal evidence that displays trends and trajectories has greater potential than snapshot data for informing educators' school-improvement activity.

- *Extent of use.* In addition to the above five dimensions along which principals and schools may vary in their uses of data, we also inquired about *extent of use*, a broader indicator of the prevalence of data use in schools. Within this dimension we incorporate variability in the types and number of organizational contexts in which data are used (e.g., school-improvement planning meetings, grade team meetings, data retreats).

Data Use and Student Learning

Evidence about the impact of data use on student learning is still quite meager; it has to be cobbled together from different strands of research. The most compelling line of research focuses on teachers' use of formative or "just-in-time evidence"²³² about students' learning to shape their own instruction. Black and Wiliam's (2004) review of more than 250 studies serves as the primary source for the claim that formative assessment, in Popham's words, "can fundamentally transform the way a teacher teaches" (2008, p. vii).

Evidence is mixed at best about the impact of large-scale state and district testing programs on student achievement. Koretz (2005), for example, claims that evidence about the effects of assessment-based accountability is both sparse and discouraging. Indeed, a vigorous critique of the effects of large-scale assessment has developed as the tests in question have become increasingly high-stakes for students, teachers, and administrators.²³³ On the other hand, in a comparison of high- and low-accountability states, Carnoy and Loeb (2002) found significantly greater achievement in eighth-grade mathematics for students in high-accountability states, with no difference in retention or high school completion rates.

Some evidence from research on effective schools and school districts making improvement shows that data-informed decision making, with an emphasis on data about student progress and outcomes, is characteristic of district-level leadership in these settings.²³⁴ Coburn, Touré, and Yamashita's (2009) case study of data use in one school district reveals, however, that educators and other interested parties may use of assessment data and other forms of evidence symbolically rather than instrumentally, as different policy actors attempt to influence decisions to reflect their preferences. This finding challenges the simplistic view that data use for school improvement is a straightforward, objective process.

New Evidence

To better understand the four broad issues motivating this strand of our research, we undertook complementary sub-studies using qualitative (site-visit interviews) and

²³² Erickson (2007).

²³³ E.g., McNeil (2000b) ; Mintrop (2004).

²³⁴ E.g., Cawelti & Protheroe (2001); Murphy & Hallinger (1988); and Togneri & Anderson (2003).

quantitative (surveys, student achievement measures) data at the district and/or school levels.

- Sub-study one focused on the types and nature of data use by principals in their decision making; district influences on data-informed decision making by principals; and the relationship between school data use and variability in student achievement.
- Sub-study two focused on data use and support for data use in schools and at the district level, along with case studies of six site-visit schools identified from our surveys as high data-use schools.

While our research questions varied for each analysis, they all employed the Ikemoto and Marsh framework as a common organizer for analysis and discussion. The discussion that follows integrates findings from each sub-study where appropriate.

Method

Sub-study one. Interview data collected from 27 principals during the second round of site visits provided the qualitative evidence for this sub-study. While these interviews were relatively open-ended, our analysis of them was explicitly guided by the framework described above. Our quantitative evidence consisted of responses collected from 3,969 teachers and 107 principals during the first round of surveys (for a response rate of approximately 70%). The school was the unit of analysis. Data from each of the 107 schools included responses from the principal and seven or more teachers. Five questions on the principal survey asked about the extent of their districts' approach to data use; four questions inquired about principals' own approach to data use; and two questions on the teacher survey asked teachers about their principals' approach to data use.

Data about annual levels of achievement in literacy and mathematics provided the final source of evidence for this analysis. These data, obtained from each school's website, derived from state testing programs. We explored the relationship between variations in data use and student achievement using average annual achievement measures. Following Linn's (2003) advice for generating stable achievement measures, we represented each school's performance by the combined mathematics and language scores for all grades tested, averaged over three years. We also examined mathematics and language scores separately.

We did not select schools for sub-study one on the basis of their data-use practices. Rather, we selected them to represent the normal distribution of schools on such variables as size, student SES, and school level, but weighted more heavily in favor of schools serving high-needs students. We assume that the data-use practices portrayed by our data are typical of many schools across the country.

Sub-study two. Here we examined what district administrators (e.g., superintendents, assistant superintendents, curriculum and assessment directors) from the 18 site-visit districts had to say about data use for decision making at the district and

school levels. For this analysis all district administrator transcripts across the three site visits were reviewed. Comments related to evidence use and factors affecting data use were collected using the Ikemoto and Marsh (2007) schemas of data use conditions and processes as a framework for organizing the data prior to undertaking a more in-depth inductive analysis of findings within those dimensions.

We also used items about data use from Round One of the teacher and principal surveys to measure the extent of data use in schools. We sorted site-visit schools into high (one standard deviation or more above the mean), medium, and low (one standard deviation below the mean) data-use groups, and we selected six high data-use schools for case study analysis of the interview data from principals and from teachers. This sample comprised five elementary schools and one middle school from five districts located in four of the nine states. The analytical process adhered to that described above, except that case studies of data use were constructed for each school and then compared across the six schools to draw greater insight.

Results

State Approaches to Data Use

To explore this issue we used data from sub-study two. The U.S. government and the states have created an accountability context in which data are a prominent feature. District leaders play a key role in determining how data are actually used in their districts. They model data use in district decision making; they set expectations for data use in school-improvement activities, and monitor the efforts that follow; they make use of supplementary tools to facilitate data use (e.g., data reports for schools, curriculum-embedded assessment instruments of student learning); and they mobilize expertise (locally developed or accessed externally) to help principals and teachers use data properly in decisions they make about improving student learning and school results. Very few principals are deeply and skillfully engaged in data use on their own, and isolated engagement is not sustainable in the face of staff turnover.

Superintendents acknowledge that federal and state standards and accountability systems have created a situation in which district and school personnel cannot ignore evidence about students who are struggling or failing to meet mandated standards for academic performance, as reflected in test results and other indicators of student success (e.g., attendance, graduation rates). With few exceptions, the district leaders we interviewed describe this as a positive turn of events, though they are not all equally well supported by their state education agencies in local efforts to make use of these and other kinds of performance data.

Respondents frequently identified the following issues associated with state expectations and support for data use:

- whether or not state assessment data are made available in a timely manner that enables local educators to make meaningful use of data

- whether or not state data reports provide sufficient detail to enable local educators to identify specific curriculum expectations that are and are not being met by individuals and sub-groups of students
- whether or not the state provides diagnostic and formative assessment tools aligned with state curriculum standards to help school personnel track student progress and provide assistance during the year
- whether or not the state education agency and/or state supported education service units have sufficient expertise to respond to local needs for effective data use
- the compatibility of state assessments and supplementary assessments that districts develop or adopt to compensate for gaps in the state system

Relationships between District and School Approaches to Data Use

Districts differed in their approaches to and support for data-based decision making. The differences reflect differences in state accountability systems; they also reflect differences in how district leaders use the data resources provided by the states, and in how they compensate for perceived deficiencies.

We examined data from interviews with district and school administrators concerning district data use. The fit of any district to Ikemoto and Marsh’s typology of approaches to data use (basic, analysis-focused, data-focused, and inquiry-focused) is imperfect. However, the distinctions Ikemoto and Marsh draw are useful for describing how district leaders approach and support the use of data. We highlight salient similarities, differences, and trends in the complexity of data use from a district perspective.

In all districts, leaders were attentive to state test results and other required accountability measures (e.g., graduation rates, attendance)—for individual schools and for the district in relation to state proficiency standards and AYP targets. Some district leaders also gathered data from schools using district performance benchmarks and indicators. At a minimum, leaders used these data to identify concerns about the performance of students overall in selected curricular areas, or about specific schools and groups of students. Most districts supplemented state test data with other kinds of student assessments—norm-referenced tests, e.g., and diagnostic and formative assessments of individual student needs.

Diagnostic and formative assessments are meant to be used by school personnel to identify students requiring special program interventions (e.g., remedial programs, tutoring) or more differentiated instruction in the classroom. It is typically the district that mobilizes access to these assessment tools. We encountered variability in the extent to which districts and schools rely on state diagnostic and formative assessment instruments, commercial assessment instruments, or district-developed instruments.

Our evidence shows a trend toward increasing the array of data that district and school personnel consult in making decisions. Beyond the practical challenges of training people about how to interpret data and making time for them to do it, districts faced a major challenge in issues of compatibility and alignment among elements of assessment systems. To the extent that districts and schools are accountable for meeting state performance standards, any assessments that are not clearly linked to performance on those standards is problematic.

This problem is less evident in districts that have developed curricula well aligned to state standards, and that have succeeded in developing curriculum-embedded diagnostic and formative assessments of individual student progress. In these districts, data generated from regular assessments by classroom teachers are aligned with state standards, and it is likely to provide guidance for interventions that will foster improved performance according to those standards.

Districts also varied in their expectations of and support for the people assigned to lead, or participate, in the analysis of data. District size was clearly a factor here. Whereas large districts were likely to employ assessment and evaluation specialists (individuals or teams), small districts were more likely to rely on district administrators or curriculum directors with expertise in assessment matters. Small districts also were more likely to draw upon expert advice and assistance provided by curriculum and assessment specialists from state-supported education service centers.

District leaders recognized the need to develop capacity for data use among school personnel, particularly in decisions about school-improvement initiatives and instructional programs. We observed what seems to be a progression in district approaches to developing that capacity. In some settings district leaders reported a shift: initially, an emphasis on developing principals' expertise in data use; next, an emphasis on training selected teachers in each school as resident experts; and, more recently, an emphasis on encouraging and supporting data use by classroom teachers, working in teams.

Districts varied in the complexity of the data analyses they called for. In part, this variation reflects the level of detail provided in state data reports; it also reflects what district leaders do (or do not do) to compensate for perceived deficiencies in those reports. Some states do not provide test results in a form that makes it easy for principals and teachers to do an item analysis showing where students did not perform well, and which curriculum standards are linked to those test items. In these cases, school personnel were likely to make superficial use of state data—identifying broad areas of concern, but with little understanding of specific needs for improvement—unless the district were to provide special assistance with the task.

Even states do provide data in a form that allows for item analysis, some districts stop short of providing schools with strategies and tools needed to investigate underlying factors that might be causing identified problems. In the few districts that exemplified an inquiry-focused approach to data use (in Ikemoto and Marsh's terms), district leaders

posed questions and then proceeded to explore them with existing and new data, as needed. In one district, the superintendent asked how many students were reaching Grade 5 without reading proficiently, and why? District leaders uncovered a pattern of low teacher expectations and social promotion in the primary grades. This led to a series of interventions: a standards-based report card, enforcement of promotion policies, and in-service training and communication with teachers about raising expectations for young children's learning

We observed one other shift in the evolution of data use. In a few districts, district and school leaders reported that analysis of trend data by district and/or state assessment specialists had led to the identification of early indicators of students academically at risk, based on test scores or other factors (e.g., family circumstances), in lower grade levels. While state education agency specialists had made tools available for trend analysis in one of the states we sampled, the shift toward assembling and making trend data available to district and school personnel has been largely a district-level initiative. This has become possible thanks to the growing availability of software that enables educators to store and retrieve longitudinal data on students, individually or by groups. (While access to trend data is increasing, however, district and school personnel were more apt to talk about its availability and potential than its use).

Types of Data Used by Principals and Teachers

Principals across the sample of site-visit schools confirmed the extensive use of systematically collected evidence about student achievement. All but one principal referred to state-mandated assessment results. Sixteen of the 27 principals mentioned district-mandated measures of student achievement. A few talked about the development of diagnostic and formative assessments, aligned with state and district curriculum standards, used by teachers to track student performance. These data were often used to identify and provide targeted interventions for struggling students. High data-use schools, particularly, emphasized the development and systematic use of diagnostic and formative assessments of student learning.

Principals also referred to evidence about their students as a group, including student mobility rates, attendance rates, graduation rates, proportion of students eligible for free or reduced-price lunch, students "at risk," and students with handicaps of various sorts. At a minimum, they used this sort of data in compliance with policy requirements for reporting student test results and for allocating students and district resources to categorically prescribed programs, such as Title I. Less frequently, school and district personnel used background information for help in interpreting student and school performance data. This more complex use of data was more likely in high-data use contexts.

Principals and teachers in some districts reported the adoption of computerized data management systems, and the potential these systems suggested for displaying and using trend data on student performance. But they talked more about the added workload involved in entering data into the systems than about actual retrieval, analysis, and use of trend data for decision making.

When we asked about data use for decision making related to improvement in the quality of teaching and learning, principals across the site-visit schools spoke mostly about student assessment data, not about data on teacher performance or the need for professional support. Some principals, however, reported that student performance data (particularly formative data at the classroom level) related to targeted school-improvement goals (e.g., for reading, writing) did enter into their discussions with teachers during regular teacher supervision processes.

A few principals mentioned unobtrusive methods of learning about what was happening in classrooms through workplace discussions with teachers individually or in teacher teams (e.g., grade-level, subject teams, professional learning community groups). Several described observations they were able to make regarding teachers' instructional practices and students' responses during informal classroom walk-throughs (which appear to be an increasingly common administrative practice in schools). In high data-use schools, principals were more likely to connect teacher supervision processes and the more informal observations and conversations to specific instructional improvement goals and initiatives.

No one talked about aggregating information about individual teacher performance, from formal or informal supervision processes, for use in decisions about improvement goals and progress. Perhaps principals did not routinely think of the information they were assimilating through observation and talk about teaching practice as "data." From an outsider's perspective, however, observation and talk certainly could yield evidence relevant to administrative decisions.

In sum, we offer two general observations. First, principals and teachers had considerable amounts of evidence about the status of individual students and their student populations, and they used it in various ways. But they had little formal evidence about the organizational conditions that might need to change if classroom and school performance were to improve. Second, high and low data-use schools differed little in respect to the data available to them. Differences were more evident in the uses schools made of the available data.

Patterns of Data Use in High Data-Use Schools

Guided by Ikemoto and Marsh's (2007) framework, we used evidence from sub-study two to describe patterns of data use, especially in high use schools.

Complexity. The scope, frequency, and complexity of data use were greater in high data-use schools, as were the potential contributions of data use to improvement in teaching and learning. Principals in most schools, for example, cited state test results as a factor in setting school-improvement goals. The number of sites where principals and teachers were actively using data to monitor the outcomes of school-improvement plans, however, was more limited.

Teachers and principals in many schools reported using diagnostic assessment instruments as a basis for identifying struggling students and placing them in remedial programs at the beginning of the school year. School personnel in higher data-use schools

were more likely to report using formative assessments of student progress at intervals across the school year; they were also more likely to rely on cyclical decisions about which students needed additional help through remedial or enrichment programs, after-school tutoring, and differentiated instruction in the classroom. Less frequently, principals and teachers reported using data in making decisions about professional development plans or in the course of conversations with parents about student performance and programming.

Specific purposes. Teachers have always evaluated their students for the purpose of grading and marking report cards. Incorporating student performance data into decisions about instruction has been less common. That use of data, we found, was more likely to occur in settings where district and school leaders had linked data use to specific purposes. In some schools, for example, teachers used diagnostic and formative assessment data to make decisions about student placement in remedial reading or math programs, or in school-based tutoring programs. Principals arranged in-service training to increase teachers' repertoires of instructional strategies in order to foster differentiated instruction in subject areas targeted for improvement.

Participants. Use of data was largely a collective activity in schools. It happened in grade team meetings, subject groups, professional learning community groups, committees convened to assess and monitor needs for at-risk students, school leadership or improvement teams, or in whole-staff events, such as data retreats and faculty meetings.

In some schools, inquiry-oriented data use was being modeled by the principal, but had not yet evolved into a more collective activity involving teachers, as well. The principal in one school, for example, did her own investigation of why so many Hispanic students entering the school at Grade 3 had not moved on to English medium classrooms, as expected, by Grade 6, and she presented her findings and plans to her staff. In another school, the principal sought out comparison data on state test results from other schools in an effort to learn why his schools' performance rating had slipped below the state's exemplary rating, and he took action based on his analysis.

Sources of expertise. Our interview data point to five potential sources of expertise in data use in schools: central office personnel (superintendents, curriculum or assessment specialists); state-supported regional education center specialists; principals; key teachers trained to serve as assessment and data experts; and classroom teachers in general. In lower data-use schools educators tended to depend on external expertise, or to rely on the principal or a key teacher (e.g., counselor, literacy coach) as the resident data expert. In higher data-use schools, expertise was more widely distributed. Principals and teachers reported increasing efforts to develop the capacity of teachers to engage collectively in data analysis for instructional decision making, supported by but not dependent on other experts. Data use was often the focus of professional learning community initiatives. Districts contributed by offering training in the use of curriculum-linked classroom assessments, school-wide data analysis events, coaching of teacher

teams (grade or subject teams, professional learning community groups), and the purchase and training in the use of data software .

Key role of principal. Principals played a key leadership role in establishing purposes and expectations for data use. They also provided structured opportunities for data use (collegial groups and time), learning about data use through training and assistance, access to expertise, and follow-up actions. Principal leadership in this respect was crucial. Where principals do not make data use a priority—mobilizing expertise to support data use and create conditions to facilitate data use in instructional decision-making—teachers are not doing it on their own. We did see examples in some schools of principals providing leadership for data use in the absence of well organized district-level leadership and support. Overall, however, the scope and complexity of data use in schools mirrored the data use orientations, practices, expectations, and support shown by district office leaders.

Problem solving. In all the schools we studied, school personnel were using student performance data to comply with external accountability requirements and to identify problems at the school, student sub-group, or individual student levels. However, principals and teachers in only a few settings had progressed beyond using data for problem *identification* to using data for problem *solving*. Principals and teachers who had turned to problem solving were gathering and analyzing data in order to understand the causes or factors related to the problems in question and to monitor the effects of interventions implemented in order to ameliorate those problems.

In one elementary school, for example, the principal and teachers identified improvement in children’s expository writing as a school goal. The principal mobilized teachers to develop mid-year writing prompts to supplement beginning- and end-of-year assessments developed by the district. She called on district consultants to provide in-service training for teachers, not only on the use and interpretation of assessments based on the district’s standards-based writing rubric but also on teaching methods associated with identified goals for improvement in writing. She organized the teachers into professional learning communities dedicated to studying student progress and the effects of teacher interventions. And she and the teachers implemented a process whereby teachers interviewed students about their responses to the strategies for teaching writing that teachers were using.

Challenges. On the face of it, the push toward using increasingly complex types of data and increasingly complex analyses to inform decisions seems like a good idea. But we observed tensions in some schools between traditional norms of decision-making (reliance on established expertise) and the recent move toward decisions informed by evidence. The tension was especially notable in settings where districts mandated the use of computer-based data management systems to record (and potentially retrieve and use) many forms of assessment information, student characteristics, and program placement data (e.g., by grade, classroom, sub-group population) over time. Teachers talked about data overload, emphasizing the time required to enter information into these systems as well as the time and expertise required to retrieve and interpret it. It often remained

unclear what specific purposes these systems were to serve. Tension also surfaced when school or district leaders called for data-informed decisions to be made in areas where those decisions had traditionally been made by teachers on the basis of their individual and collective expertise. This issue was most salient in schools where the vast majority of students were already performing at high levels.

Effects of Data Use on Student Achievement

We used quantitative and qualitative methods to examine the relationship between data use and student achievement. The quantitative analysis focused on responses to principal and teacher surveys and on our measures of student achievement in literacy and mathematics. First we entered three measures of data use (principals' view of district data use, their own data use, and teachers' perceptions of principal data use), as a block, into a regression equation. We entered the four demographic variables (student diversity, poverty, school level and school size) in the final equation. None of the measures of data use had a significant effect on student achievement when added to the equation on their own, nor did they have any unique explanatory value when combined with the four demographic measures in the final equation.

The demographic variables explained about 19% of the variance in student achievement, with school level and diversity each explaining about 5% of that variance. We used the same variables for another analysis that reversed the order of entry for the data use and demographic variables. The results were essentially the same. We conducted a third analysis with these variables, using only the elementary schools (52). In this analysis, data-use variables did have a significant effect on achievement, explaining 19% of the variance with the first equation [$F(3,51) = 5.03, p < .05$]. The explained variation increased to 24% in the second equation with the demographic measures, but only *perceptions of district use* had a significant effect. However, the reduction of the number of cases (to fewer than 10 per variable for the regression analysis) limits the reliability of this result.

Given this weak statistical evidence of positive relationships between student achievement and district or school data use (as reflected in the principal and teacher survey items), we turned to our qualitative data, which provided the following insights:

- The availability of student assessment data in the context of current federal, state, and district accountability requirements is causing district and school personnel to justify their goals and plans for improvement, focusing in particular on students and schools that are not meeting standards-based performance expectations and targets.
- The potential for these focused improvement plans to make a difference in the quality of student learning is highly dependent on the degree to which local educators are able to align local curriculum, teaching, and assessment practices with the external measures against which they are being held to account.

- District and school efforts to improve student learning are more likely to have a positive effect when the data available and the analysis performed by local educators go beyond the mere identification of problem areas to an investigation of the specific nature of the problem, and factors contributing to it, for the students and settings where it is situated.
- Improving teaching and learning with the use of data is only as effective as are the insights gained with data analysis and the consequent actions taken regarding the problem and how it might be solved.

Our quantitative and qualitative findings lead us to speculate that there may be both a lower and an upper threshold beyond which increased or improved use of data by school and/or district personnel simply will not make much difference. One of the large, low-SES urban districts in our sample, for example, had been classified under AYP regulations as in need of district-level intervention by the state, because so many of its schools were not meeting AYP targets. In this situation, it seems likely that there are fundamental social, resource, and perhaps leadership issues affecting student engagement and performance in schools, such that significant improvement without changes in those fundamental conditions is unlikely, even through curricular and instructional improvements informed by detailed analyses of assessment data.

On the other end of the spectrum, our sample included districts and schools that were performing at high levels relative to state performance standards. In such a setting, there may be a saturation point beyond which additional forms of data or expectations for data use simply do not add much value—only more work. In these situations the real imperative for improvement may have more to do with rethinking and redefining the goals for student learning than with increasingly complicated patterns of data use.

Implications for Policy and Practice

Four implications for policy and practice emerged from this section of our study.

1. Districts are encouraged to spend less time ensuring that schools have large amounts of data and more time helping principals and teachers figure out how such data might help them do the job they are trying to do. In addition to multiple measures of student achievement, most principals had access to data about background characteristics of their student populations, including socioeconomic status, poverty, and diversity. No doubt these characteristics account for significant variation in achievement in typical schools. Indeed, in our sample of schools, these variables far outweighed the effects of principals' data use. So the challenge is to transform data not only into actionable evidence, but also to help principals understand the implications of such evidence for their improvement efforts.

2. Districts and schools would benefit from collecting data about local *family educational cultures* – norms, beliefs, values, and practices reflecting families’ dispositions toward schooling and their role in it. Many elements of such cultures (e.g., parental expectations for children’s success at school) are malleable in response to school intervention and make quite significant contributions to student achievement (Hattie, 2009). But we saw little evidence of districts or schools collecting systematic evidence about these variables.
3. Districts should work with school principals to help expand the range of high-quality data available to schools in order to more fully encompass the range of variables implicated in schools’ problem-solving efforts. Very few principals had systematically-collected evidence about the school and classroom conditions that would need to change for their students’ achievement to improve. Many of these conditions are evident in other strands of our larger study including, for example, teachers’ dispositions toward collaboration, teacher efficacy, trust, academic press, and disciplinary climate.
4. While districts do need to help all schools increase the sophistication of their data-use processes, priority should be given to helping secondary schools. A slim majority of principals processed their data in collaboration with their staffs and called on district staff members and others with special expertise to help them with data analysis and use, as normative theory on this matter recommends. But the typical approaches to data use by districts and principals had no measurable influence on student learning across school levels in the aggregate. In elementary schools, however, data use may account for a significant proportion of the variation in student achievement, over and above the effects of student diversity, poverty, and school size.

2.6 District Approaches to Improving Teaching and Learning

Key Findings

District policies and practices around instruction are sufficiently powerful that they can be felt, indirectly, by teachers as stronger and more directed leadership behaviors by principals. Higher performing districts tend to be led by district staff who:

- Communicate a strong belief in the capacity of teachers and principals to improve the quality of teaching and learning, and in the district's capacity to develop the organizational conditions needed for that to happen (high collective efficacy).
- Build consensus about core expectations for professional practice (curriculum, teaching, leadership).
- Differentiate support to principals in relation to evidence of compliance and skill in implementing the expectations, with flexibility for school-based innovation
- Set clear expectations for school leadership practices, and establish leadership-development systems to select, train, and assist principals and teacher leaders consistent with district expectations.
- Provide organized opportunities for teachers and principals to engage in school-to-school communication, focusing on the challenges of improving student learning and program implementation.
- Develop and model strategies and norms for local inquiry into challenges related to student learning and program implementation.
- Coordinate district support for school improvement across organizational units (e.g., supervision, curriculum and instruction, staff development, human resources) in relation to district priorities, expectations for professional practice, and a shared understanding of the goals and needs of specific schools.

Introduction

This chapter examines ways in which districts foster improvements in teaching and learning. We assumed at the outset (1) that successful districts focus on and support efforts to improve teaching and learning and (2) that districts are not all alike in the ways in which they embody this focus in policies and actions. Our analysis supports both of these assumptions.

Our findings also suggest that differences between districts, regarding efforts to improve teaching and learning, cannot be ascertained merely by asking administrators and specialists to articulate their priorities. All district leaders believe that they focus on instruction, but we found substantial variation from district to district in the levels of skill and understanding with which they address this focus. To describe and analyze inter-district differences it is necessary to examine actual practices related to curriculum and instruction, and the interaction of those practices with other strands of district-level action and influence.

Prior Evidence

A number of studies in the 1970s and 1980s documented differences in district-level orientations and approaches to educational change. Berman and McLaughlin (1977) distinguished districts in terms of bureaucratic, opportunistic, or problem-solving motivations of district authorities. Not surprisingly, they found that teachers and principals implemented and developed new programs and practices more effectively in districts that approached change with a problem-solving orientation. Rosenholtz (1989) differentiated between “stuck” and “moving” districts in her investigation of teachers’ workplace conditions and change. More effective schools were located in districts that give a higher priority to improving teaching and learning. Berman et al. (1981) reached a similar conclusion. They distinguished among four district roles in the school improvement process: controlling (district regulates what is to be done, how, and by whom); directive (district sets goals, establishes a master plan, and controls funds, but leaves some discretion for schools to determine how to implement the plan and achieve the goals); facilitative (district gives schools autonomy and support to decide on their own needs, goals, and programs); and neglect (district provides no special guidance or support to schools). Schools in facilitative districts did the best job of identifying and addressing school needs and approaches to change.

Others have focused on the link between strategy and effect in district efforts to improve schools. Louis (1989), drawing from a survey and case-study investigation of initiatives in urban secondary schools, identified four district-level approaches to school improvement: innovation implementation (uniform processes and outcomes), evolutionary planning (uniform processes, variable outcomes), goal-based accountability (variable processes, uniform outcomes), and professional investment (variable processes and outcomes). Like Berman et al., Louis emphasized the importance of relationships between schools and districts, as evident in levels of bureaucratic control (rules and regulations) and organizational coupling (e.g., shared goals, community, joint planning and coordination).

The issue of top-down versus bottom-up approaches to improvement has a long history. Massell and Goertz (2002) described alternative, and reportedly successful, top-down and bottom-up district strategies for change and improvement, with the implication that no best way can be generalized to all settings. Spillane (2002) found that district leaders’ approaches to facilitating implementation of state curriculum policy are shaped

in part by their conceptions of teacher learning: quasi-behaviorist, situated, and quasi-cognitive. Other research has pointed to the possibility that top-down and bottom-up approaches need not be viewed as alternatives, but can be combined.²³⁵

Recent research on the district role in school-improvement activity has focused increasingly on the identification of specific district-level policies, actions, and conditions that are related to improvement in teachers' and students' performance. Much of this research converges on a common set of policies, actions, and conditions associated with district-wide improvement and effectiveness, as described in section 2.2, above.²³⁶ Findings from this research are consistent with investigations that have focused specifically on the actions of superintendents and other senior administrators.²³⁷

In sum, districts vary in how they understand and approach the task of improving teaching and learning. However, much of the research bearing on this point was undertaken prior to the era of standards and accountability-driven reform that began to take shape in the 1990s and was universalized in the United States under the federal No Child Left Behind Act. It remains to be seen whether districts will differ markedly from one another or converge on common approaches as they work to improve teaching and learning in this new policy context.

Historically, school districts have supported schools differentially according to differences in school types (e.g., elementary, middle, high schools) and compliance requirements specified by legislated categorical differences in students and programs (e.g., Title I, ELL). The latter categories of support are rationalized in terms of the perceived challenges schools face in serving certain categories of students. Contemporary accountability policies have created the added expectation that districts will differentiate support to schools on the basis of achievement results from state testing programs and other accountability measures, with particular attention to be given to schools where large numbers of students are not meeting standards of proficiency. Exactly how that expectation plays out in school districts has not been systematically studied. On the one hand, districts may simply be complying with specified interventions to schools that fail to meet Adequate Yearly Progress targets. On the other hand, school district leaders may be developing and implementing their own strategic responses to various school needs for improvement, in conjunction with NCLB and state-mandated interventions.

New Evidence

Method

We obtained data for this component of our study from the second round of principal and teacher surveys and from evidence collected in interviews during all three rounds of our site visits to 18 districts.

²³⁵ Elmore & Burney (1998).

²³⁶ Anderson (2006); Campbell & Fullan (2006); Cawelti & Protheroe (2001); Hightower et al. (2002).

²³⁷ Murphy & Hallinger (1988); Waters & Marzano (2006).

Survey analysis. The second principal survey contained six items intended to measure principals' perceptions of the districts' focus on and support for improvements in teaching and learning. We used these items to address two questions:

1. How do principals assess the emphasis given to improving teaching and learning by their district administrators?
2. Does the district's emphasis on teaching and learning affect the principal's instructional leadership behavior?

We analyzed the responses to these six items descriptively, and we developed a scale that combined them.

- *District focus on instruction scale.* We added standardized scores for the individual measures. The Alpha for the scale is .89. To examine the question of how district policies and practices in the area of instructional improvement are reflected at the building level, we used teacher assessments of their principals' instructional leadership from the second survey.²³⁸

In addition, we used the scale measuring teachers' perceptions of their principal's instructional leadership behavior, which was described in detail in Chapter 1.2.

- *Principal instructional leadership scale.* Six items in the teacher survey measured the frequency of principal instructional leadership behaviors on a five-point scale ranging from *never* to *10 or more times*. These included *discussed instructional issues with you*, *observed your classroom instruction*, and *provided or located resources to help staff improve their teaching*. We added the standardized measures, and produced a scale with an alpha of .94.

Site interview analysis. All three of the site-visit protocols used in the individual interviews probed for district priorities and strategies. We constructed case studies of 12 of the 18 districts, focusing on two strands of analysis:

1. district improvement efforts and state policy influence
2. district-wide goals and support systems for school improvement

Our selection of districts for case analysis was purposive; we sought to increase the variability of district characteristics, and we drew upon the research team's knowledge of the sites. For an analysis of how district administrators differentiate support for improvement to schools, for example, we focused on medium- to large-sized districts serving multiple schools at all levels, rather than small districts with only an elementary, middle, and high school. For our analysis of the relationship between district improvement efforts and state influences (see also section 3.3), we focused mainly on the

²³⁸ We also investigated the relationship between district focus on instruction and principals' self-assessments of their expertise in providing instructional support to teachers. We argue, however, that a stronger test of the importance of the district's role is to look for the reflection of improved principal leadership on the part of those who experience it.

small- to medium-sized districts, given that more than 90% of school districts in the United States serve less than 25,000 students, and given our impression that much research on the district role in educational reform is concentrated on the experiences of large, urban districts.

In order to understand the effects of administrator turnover at the district level, we concentrated on districts where there were changes in the superintendency during the course of our study. The sample of district office personnel interviewed in each district varied according to district size and organizational structure. We interviewed senior administrators and staff, including the superintendent, assistant superintendents or directors for curriculum, assessment, and staff development; and line superintendents responsible for supervision and support of designated schools. In small districts, we also interviewed school principals who often took on system-level roles or functioned as the superintendent's leadership team for consultation and decisions on district-wide matters. In larger districts, we interviewed principals only in the site-visit schools.

This analysis is based on overall district approaches to improving and sustaining the quality of teaching and learning, with particular attention to how district leaders conceptualize and address variability in school performance and progress in implementing local improvement efforts.

Survey Analysis

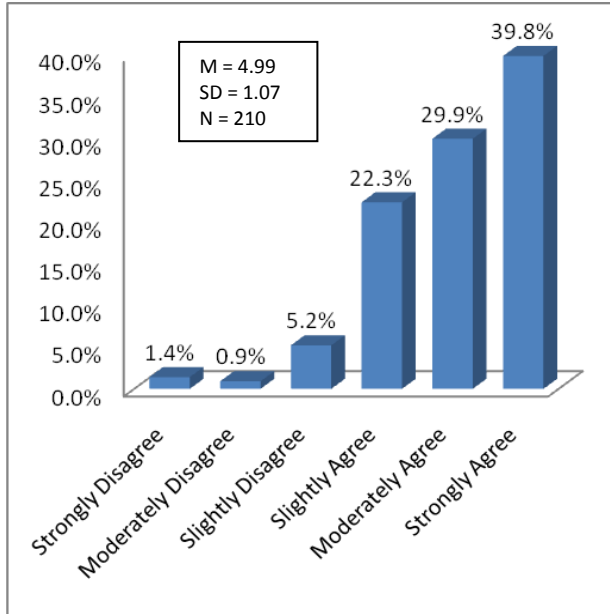
Principals' assessments of district instructional focus. Six questions in the second principal survey tapped principals' assessments of the priority given by their district administrators to teaching and learning. As can be seen in Tables 2.5.1-2.5.5, principals generally believed that their districts were clearly focusing on this area. However, the responses also suggest some differences. For example, principals give the highest ratings to the district's ability to clearly communicate standards for *instructional improvement*. *Clearly communicate expected standards for high-priority areas of instruction* had a mean of 4.9 on a six point scale. Also highly rated is *Have a detailed plan for improving instruction across the district* (mean of 4.8).

Principals are slightly less generous in their general assessment of the degree to which their districts *Are active and effective in supporting excellent instruction* (mean of 4.67). When they rate specific actions, however, they are even more discriminating: the district's ability to *Clarify the steps needed to improve the quality of instruction* has a mean of 4.5, while the question of how frequently they *Communicate about best practice in high-priority areas of instruction* has a mean of 3.6, which falls between categories of *occasionally* and *often* on a five-point scale.

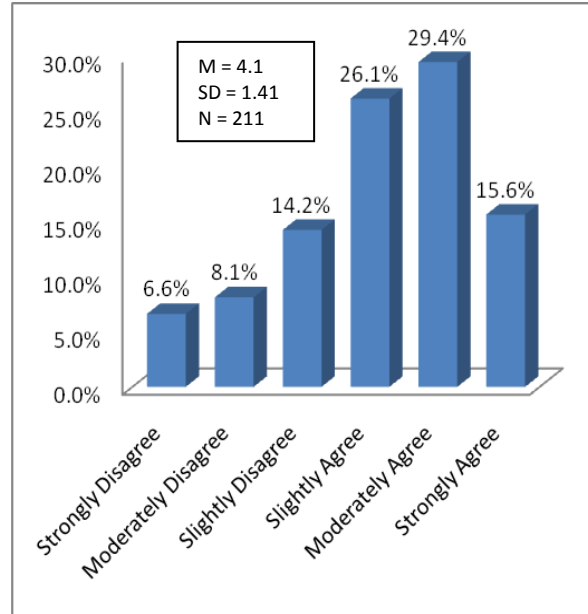
An ANOVA indicates that responses to the six questions did not differ significantly by school level (elementary, middle, high school), school size, or characteristics of the student population (percent non-white and percent eligible for free and reduced-price lunch). In addition, there was no significant variation in the responses of principals and assistant principals.

In sum, while principals believe that districts prioritize improved instruction, variations appear in responses to particular questions about whether principals receive

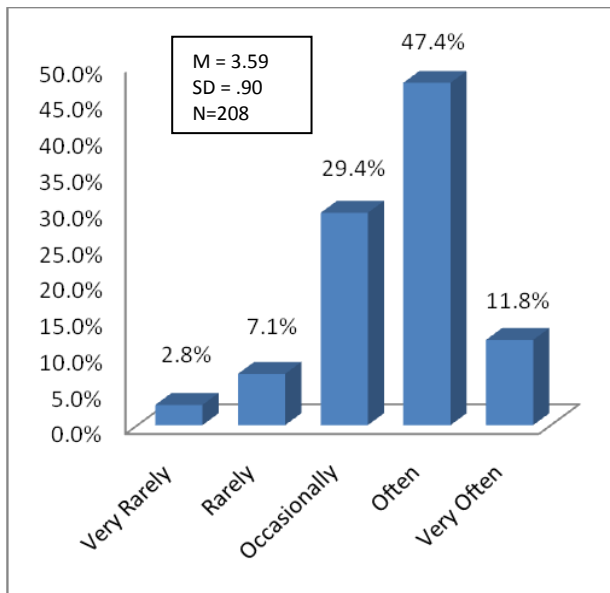
clear guidelines and support for making changes at the school level. This variation suggests that in some districts there may be a gap between the “vision” and strategic plan for improved instruction, on the one hand, and, on the other, the way in which specific support for improved instruction is delivered at the school level. As we saw in the case of professional development for principals, the gap between a set of high standards and tangible support for those standards may be critical in determining how well principals can respond within their school settings.



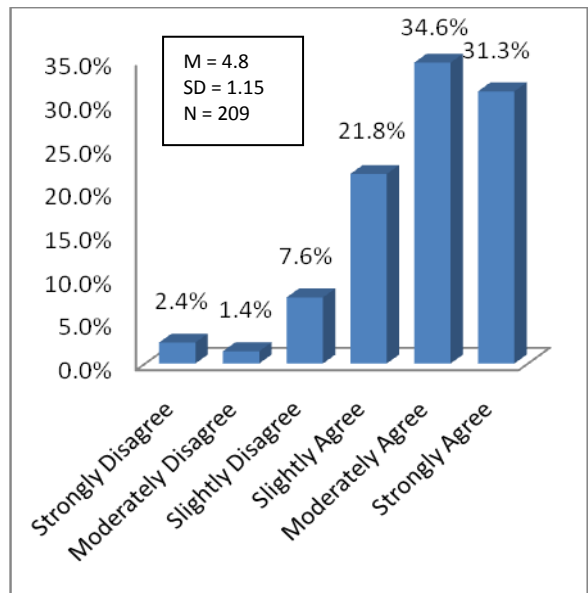
D.24. District leaders clearly communicate expected standards for high priority areas of instruction.



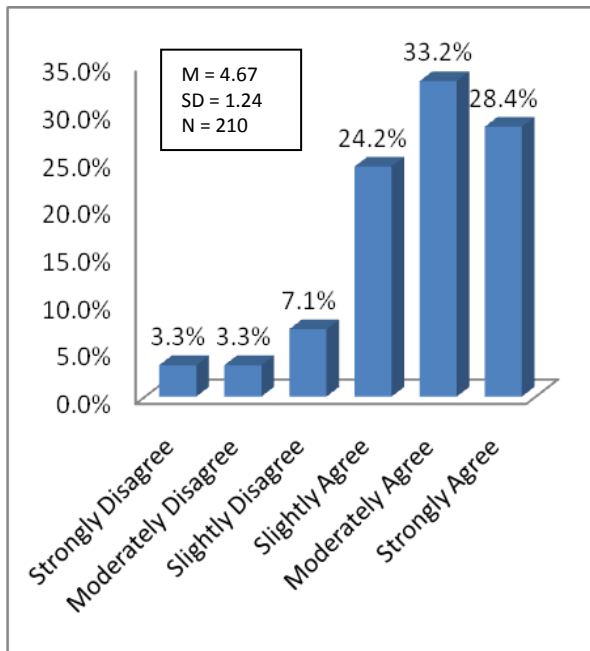
D.34. District leaders actively monitor the quality of instruction in this school.



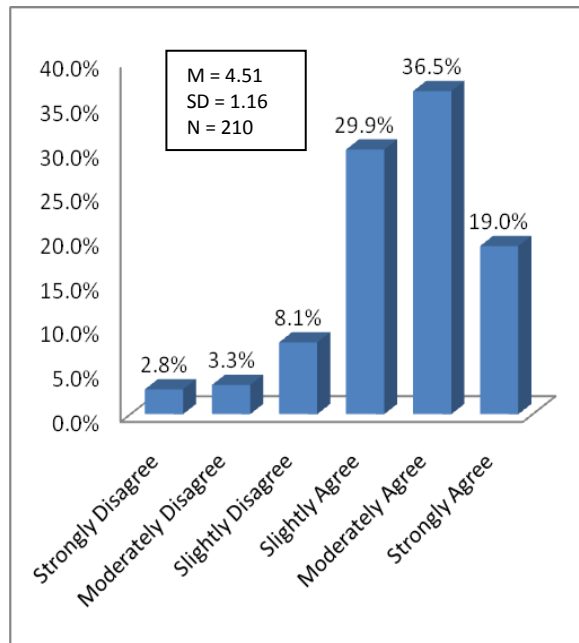
D. 14. How frequently do your district leaders communicate effectively about best practice in high priority areas of instruction?



D21. District leaders have a detailed plan for improving instruction across the district.



D26. District leaders are active and effective in supporting excellent instruction.



D.22. District leaders clarify the steps that school administrators and teachers need to take to improve the quality of instruction.

Figure 10: Principal Perceptions of District Actions Related to Improved Teaching and Learning

District focus on instruction and principals' instructional leadership. We assume that improving building-level leadership is one of the most promising approaches districts can take to fostering change. Current research suggests not only that districts must have a coherent leadership development program (as we have suggested in our investigation of professional development in Section 2.2); they must also consistently emphasize the improvement of instruction as a primary goal.

We conducted a regression of the Principal Instructional Leadership measure on the principals' responses to items in the *District Focus on Instruction* scale, including building characteristics (size and level), student characteristics (% minority and % FRP) as control variables in the model. The results, presented in Table 2.6.1., show a significant prediction of principal instructional leadership behaviors, with the predictors explaining 36% of the variance in principal instructional leadership. While the characteristics of the school and its student population, taken together, have a strong association with principals' instructional leadership, the measure of *District focus on instruction* has a significant regression coefficient.

This finding is quite remarkable: It suggests that district policies and practices focused on instruction are sufficiently powerful that they can be *felt* by teachers as an animating force behind strong, focused leadership by principals. While we do not, in this section, look for a relationship between district practices and student learning, we have

already established that instructional leadership by principals has an impact on teachers' classroom practices, which, in turn, affect student learning. This is perhaps our most powerful finding regarding the indirect connection between the choices and priorities set by districts and the classroom experience of students.

Table 2.6.1
Regression of Principal Instructional Leadership (Teacher Assessment of School Administrators) on District Focus on Instruction and Building Characteristics^a

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Model (Constant)	.265	.180		1.471	.143
District Focus on Instruction	.127	.057	.131	2.232	.027
Building Level	-.160	.080	-.159	-2.000	.047
Total Number of Students	.000	.000	-.361	-4.102	.000
Percent of nonwhite students	.794	.266	.287	2.984	.003
Percent of free or reduced-price lunch students	.246	.330	.073	.747	.456

a. Dependent Variable: Principal Instructional Leadership 4.13-22

b. $F = 21.583$, sig..000

c. $R^2 = .356$

Cross-Case Analysis

Our results are organized around the dimensions most frequently mentioned by Superintendents as bases for providing strategic direction and support for improved teaching and learning in schools, including the following:

- student performance on standards and indicators;
- school progress in implementing district expectations (curriculum, instruction);
- principals' leadership expertise for school improvement;
- school-based factors that explain differences in student performance and program implementation (e.g., instructional expertise, curriculum implementation, learning gaps, staffing, leadership, material resources);
- school/student characteristics (size, staff, SES, ELL, mobility, facilities).

Student performance on standards and indicators. Not surprisingly, district administrators are highly sensitized to how well their schools are performing against state proficiency standards and Annual Yearly Progress (AYP) targets. In the higher-performing districts, district staff corroborate the survey data that suggest the importance of developing local instructional foci and learning standards. Interviews suggest that higher-performing districts uniformly describe the district targets as aligned with—but exceeding—those of the state. Sometimes, as in two of our large urban and suburban

districts, this was articulated in terms of broad goals, such as *college readiness for all*. More commonly, respondents claimed that district expectations for student learning were more rigorous than (yet compatible with) those mandated by the state. This was particularly so in settings where district leaders mobilized the development of district-level curriculum content and performance expectations across all areas of curriculum (not only in externally-tested subjects). In the two districts referred to above, for example, district personnel also told stories of multi-year, district-wide curriculum development projects resulting in production of curriculum frameworks and materials that satisfied both state and local goals for student learning.

We encountered similar findings in some small rural districts, notwithstanding the fact that they had fewer professional staff at the district level. One rural Nebraska district led by little more than a superintendent and a curriculum director volunteered to participate in the pilot phase of the state's decentralized curriculum and accountability system. Classroom teachers, led by the local curriculum director, developed a district curriculum consistent with state curriculum expectations. District and school personnel in these settings talked enthusiastically about implementing their curriculum, and they spoke positively about achievement results for their students as evidence of its quality. In contrast, in other districts, local educators talked mainly about implementing the state-mandated curriculum, and about implementing externally developed programs to satisfy state-level expectations. The benchmark for success was performance on state-mandated tests, and they communicated little sense of striving for more ambitious goals for student learning.

In sum, where district administrators believe that their local standards are aligned to and exceed external standards and accountability measures, and where results on state tests are well above average, administrators tend to emphasize their own benchmarks as a focus for school-improvement efforts. Districts in which students are performing less well on state tests tend, on the other hand, to see themselves as driven by external standards and assessments, and to view the district as less able to determine local priorities and needs. In addition, district administrators in higher-performing districts are more likely to be positive about state curriculum standards and the validity of accountability indicators than those in districts that perform less well.

In higher-performing settings, district leaders are more likely to set continual-improvement goals for students and schools already meeting the minimum standards; they are also more likely to specify targets for students and schools struggling to meet standards. In several of the higher-performing districts in our sample (including large urban/suburban as well as rural districts), for example, district leaders and school personnel described recent and ongoing district-wide efforts to support teacher implementation of differentiated instruction. In one rural Midwestern district the superintendent championed a three-year teacher-development initiative focused on differentiated instruction. Teams of teachers were sent each summer to external professional development programs focused on this aim; these teams then were expected to lead school-based in-service training activities throughout the following year. Interestingly, in this case and in others where district-wide differentiated instruction

initiatives were underway, the explicit rationale provided by district personnel was to help teachers ensure that the needs of “high-ability learners” were not being ignored, given the predominant state emphasis on interventions to close the achievement gap between low- and high-achieving students. In these settings, local goals and related initiatives are often framed in terms of satisfying local community expectations—an argument that is most frequently heard in districts that serve large numbers of middle- and high-income families, and where there are few or no schools performing below state standards.²³⁹

In higher-performing districts, leaders did not expect improvement in low-performing schools to occur merely by means of inputs required under federal and state policies (e.g., school choice, tutoring, prescribed needs assessments and school-improvement planning, curriculum audits, advice from external consultants). They adopted additional, district-level intervention strategies. In one high-performing midwestern urban district, for example, two schools became a focus for district intervention during the final year of our study because they failed to meet AYP targets (the first two schools to be designated in that status). In addition to taking advantage of additional funding from the state, and attending mandatory workshops offered by the state for all schools identified as not meeting AYP, district leaders (curriculum superintendent, curriculum directors, school improvement director) conducted their own investigations of the problems in student performance and followed up with district support tailored to each school’s needs. In the middle school, for example, they determined that the principal needed help with his instructional leadership skills; that teachers were not setting and communicating clear expectations for student learning; and that Title 1 students were not getting adequate, specialized academic support. Throughout the year the superintendent and directors met and coached the principal on regular monthly and weekly schedules; district curriculum personnel worked with teachers on their instructional needs; and the district supported efforts to improve after-school programs for low-performing students.

In contrast, a middle school in a small, high-poverty district in one of our southern states also failed to meet AYP targets (the district had a history of adequate, albeit not high performance, across its schools on state proficiency tests). In compliance with state requirements, an external school improvement consultant was brought in. The school staff had little positive to say about that consultant’s input, and district leaders did not report any district initiatives to deal with the situation other than supporting and relying on the principal and teachers to find a solution. We heard similar criticisms about the effectiveness of state support-system interventions for low-performing schools in one of our large, high-poverty, low-performing urban school districts—where (again) the district developed no plan for systematic intervention to ameliorate the problem.

²³⁹ The phenomenon of schools targeted as “in need of improvement” because of failure to achieve state achievement targets under NCLB/ AYP regulations began to surface in our district-level findings during the final year of data collection (2006-2007). The number of schools failing to meet AYP targets was nil or small in many of these districts (e.g., 2 of 60 schools in one large district), although in one state an entire district was designated as “in need of improvement.”

In higher-performing settings, district leaders often proactively monitored trends in schools' academic performance and in their community contexts (e.g., demographic trends). Leaders did this in order to identify schools potentially at risk of not meeting AYP targets in future years; then they could target those schools and students for intervention. In one large, high-performing suburban district (i.e., 90% or more of students in most schools achieving at or above state proficiency standards), district leaders noticed demographic changes occurring in several elementary schools. The neighborhoods served by the schools were experiencing an influx of low-income families from the adjacent city. District leaders became concerned that school achievement results might decline unless something was done to support teachers and principals in efforts to respond effectively to the needs of students from low-income families. District leaders developed a set of indicators to track demographic changes and performance, and they used these indicators to designate certain schools as at-risk of declining performance, thus qualifying for additional district support (e.g., staffing, program, funding). They did so in such a way, however, that the district could sustain the initiative on its regular budget (rather than seeking and depending on additional funding from the state or foundations, for example). This example, and the prior illustration of one district's intensive efforts to turn around a school failing to meet AYP targets, point to a critical issue for school district leaders. In their responses, they talked about the challenges—financial and in human-resource needs—they faced in providing effective support for increasing numbers of schools requiring special interventions, as stipulated by government policies.

Educators from all districts talked about the need for (and utilization of) diagnostic and formative assessments of student progress throughout the school year, in addition to state achievement-test data. Leaders in higher-performing districts guided colleagues in the development of local assessment instruments. These instruments were aligned with state and local curriculum standards; teachers were expected to administer them at designated intervals and to use the results for instructional planning (see section 2.4 for examples). In some settings school personnel relied mainly on assessment tools developed or endorsed by their state education agencies, perhaps supplemented by formative assessments developed by classroom teachers in their own schools.

School progress implementing district expectations. School districts varied in the range and specificity of district-mandated expectations for professional practice—in particular, for curriculum and instruction. We are hesitant to claim that district leaders in higher-performing districts uniquely promoted more standardized, district-wide curriculum content and materials, because the trend everywhere is to increase standardization. Compared to others, however, district leaders in higher-performing districts appear to have invested in district-wide curriculum development over a longer period of time, using well-institutionalized district curriculum systems. As that development unfolded, efforts to align and coordinate other strands of district support (teacher development, school leadership development, school-improvement planning, performance monitoring) evolved. (This evolution in district support systems was more likely where continuity in district leadership, both administrators and professional staff, was evident.) Progressive alignment, refinement, and synergy among these dimensions of

district support may account more for higher performance than curriculum standardization per se.

In addition to curriculum standardization, leaders in higher-performing districts were more likely than others to promote and support implementation of particular instructional strategies regarded as effective. Expectations for uniformity in instructional practices can focus on general or subject-specific teaching methods defined by district staff as “best practices” (e.g., cooperative learning, guided reading, technology use, methods of differentiating instruction) and/or on implementation of specific district, state, or commercial programs that prescribe teaching and learning activities and materials. In one of our high-performing districts, for example, all new elementary school teachers are required to participate in district-developed year-long courses on effective strategies for teaching beginning and more advanced readers. In another high-performing suburban district, sample lesson plans replete with suggested teaching strategies, learning activities, and curriculum resources are built into the district’s online curriculum guide for teachers. Although teachers are not formally required to implement these lessons, they do have to adhere to a lesson-design format that requires them to target district curriculum objectives, to integrate computer-based learning activities into every lesson, and to engage students in small group and independent learning activities. Teachers reported that the district guide for curriculum and instruction exerts a strong influence on what they do.

In addition to providing or recommending teaching methods, leaders in higher-performing districts provided direction and support for the use of common methods of assessing and reporting student learning, aligned to curriculum expectations. Rather than complaining about loss of autonomy, many teachers we interviewed appeared to appreciate the greater clarity of expectations and access to instructional tools (e.g., course scope/sequence, lesson plans, materials, assessments) that often accompany district-wide curriculum development and support for implementation. Their receptivity to standard forms of instructional practice, however, was conditional upon the quality of district support for implementation (staff development, materials, supervision), perceived fit with state/district curriculum requirements, evidence of student impact, and opportunities for teacher discretion within the boundaries established by the district.

Leaders in higher-performing settings not only worked to establish and communicate clear expectations for curriculum and instruction; they developed and applied mechanisms for monitoring the implementation of district expectations through supervision systems and school-improvement plans. In the most fully elaborated support systems, district leaders initially ensured common training and resources across relevant sectors of the district; then they used monitoring systems to gather information about compliance and progress in school-level implementation. They also provided differentiated follow-up assistance—in some cases, to help school personnel master and comply with district expectations; in other cases, where compliance was no longer an issue, to help school personnel use the program in question more effectively and obtain better results.

All districts used internal and external expertise to help teachers implement district expectations for curriculum and instruction. For obvious reasons, larger districts made greater use of district curriculum and instruction staff than small districts did. Smaller districts relied more on state-supported regional education centers and local universities for in-service training and assistance, and for brokering contacts with other external consultants. Having district-level expectations for curriculum and instruction makes it easier for district leaders to monitor and respond to school-level implementation. In fact, as we will show in Section 3.3, principals in many districts pay more attention to meeting local standards than to state meeting standards, in part because of the systems we have described above.

Reliance on outside assistance for implementation can be challenging because of the costs, the potential problems of fit with local expectations for practice, and the absence of local expertise to provide timely follow-up assistance in response to school-specific needs. Having a central office curriculum and instruction unit does not, however, guarantee the coherence and effectiveness of district support for implementation of district-wide programs. Our evidence indicates that, compared to others, teachers in smaller districts did not feel less supported (Section 1.6). In fact the opposite is true: teachers from smaller districts rated district support higher than teachers from medium- or larger-sized districts. This suggests that size and district resources cannot account for the value-added effect of support for improved instruction. It is possible that larger districts pay less attention to the quality and utility of support for teachers because they assume that they have greater quality control over employees, while smaller districts are more attentive to the quality and utility of their “purchases.”

We also observe that higher-performing districts make greater efforts than others to maximize communication and coordination among different central office units in their interaction with teachers and principals. In other words, district office units acted more interdependently than independently in relation to district-wide and school-specific needs. The interdependent action occurred partly through interdepartmental structures. These structures make it possible for district staff members to let one another know who is doing what at district and school levels. District unit interdependence may also involve a team approach to assessing and responding to school-specific needs for help with implementation, depending on the problem.

In addition, some district leaders actively facilitated networked communication, sharing, and joint problem solving among schools. This occurred through district-organized opportunities for principals to speak to one another in principals’ meetings, leadership programs, or peer-coaching arrangements. Larger districts sometimes create systems of teacher leaders linked through district curriculum and instruction specialists. Networking between schools helps district leaders to identify differences in school needs and to enable school personnel to find solutions among themselves, rather than relying solely on the district for help.

Principals’ expertise in guiding school improvement. While most central office administrators spoke about unevenness in the leadership strengths of their principals,

leaders in higher-performing districts expressed greater confidence in their ability to improve the quality of school leadership through hiring practices, leadership-development programs, school placement, and supervision (see also Section 2.2 of this report on district contributions to principals' efficacy).

In a minority of the districts we studied, principal effectiveness was still attributed to innate rather than learned capacities, and low school performance was viewed as a consequence of external factors (state policies, school community characteristics) rather than district and principal leadership. District leaders faced with struggling schools were less rather than more likely to sponsor leadership-development initiatives or to provide strategic help to principals; they focused instead on recruiting a different sort of administrator. In one of the large, low-performing urban districts in our sample, district administrators expressed the belief that principals were essentially born, not made. They talked more about the need to replace principals in low-performing schools than about prospects for developing their leadership skills. Not surprisingly, in this setting, district leaders did not describe any local professional-development programs for principals.

In higher-performing districts, central office leaders not only believed in their capacity to develop principals; they set expectations for implementation of specific sets of leadership practices. This required focusing on specific areas of leadership practice separately (e.g., methods of clinical supervision, school-improvement planning, classroom walk-throughs, uses of student performance data), or within comprehensive guidelines or frameworks for leadership practice.²⁴⁰ In one of the higher-performing urban districts in our sample, district officials organized a three-year principal-development program based on Marzano's balanced leadership program. They supplemented this with additional training in clinical supervision. They designed district-wide in-service programs for principals, focused specifically on new curriculum initiatives (e.g., revision of the elementary mathematics program) or school-improvement initiatives (e.g., developing a professional learning communities effort, extending to all schools). In addition, the Associate Superintendent for Curriculum and Instruction dedicated portions of each monthly meeting with elementary and secondary school principals to collective leadership-development activities.

District leaders in higher-performing settings invested in the development of common professional learning experiences for principals, focused on district expectations for instructional leadership and administration. They did not rely chiefly on principals' participation in state certification programs or on support for individual principals' professional interests (addressed, e.g., in external workshops, conferences, and university programs; see also section 2.2 of this report).

Leaders in higher-performing districts communicate explicit expectations for principal leadership; they provide learning experiences in line with these expectations; they monitor principal follow-through and intervene with further support as needed. This kind of supervision is not limited to formal procedures for appraisal by principals. The

²⁴⁰ E.g., Marzano et al. (2005) on balanced leadership; Dufour et al. (2005) on professional learning communities; and Fullan (2001a) on leading in a culture of change.

more likely scenario is that gaps in principals' leadership expertise are identified through ongoing monitoring and discussion about school performance and improvement plans. Where gaps in leadership skills are identified, district leaders are more likely to intervene personally—advising and coaching the principal—than to call on outside expertise. This pattern of interaction stems not only from the clear expectations for practice that are characteristic of high-performing districts, but also from district leaders' confidence in their capacity to help principals master those practices.

School factors related to differences in performance. In higher-performing settings, district leaders understood that the reasons for differences in student performance, or in implementation of district initiatives, were particular to the setting. Similar problems (e.g., declining test scores, weak follow-through with a district professional learning communities initiative) might result from different contributing conditions in different schools. Therefore, standard solutions were considered unlikely to apply in all situations.

Leaders in these districts engaged school staff members in collaborative inquiry about the unique circumstances affecting student learning or teacher performance in their schools. They then tailored district support for improvement to the analysis of school-specific needs, rather than relying primarily on centrally determined interventions based on categorical differences among schools and their students (e.g., size, SES, ELL, facilities) or set performance cut-off levels. They invested in external and locally created data bases to inform inquiry and decision-making related to differences in student outcomes and degrees of program implementation (see section 2.4 for specific examples related to district support for data use in schools).

Challenges and Trends

Our efforts to attain greater precision in understanding “the district difference” were alternately frustrating and fascinating. Our quantitative data point to a strong district effect, noted particularly in the relationship between district policies and practices, and teachers' reports of principals' instructional leadership. Frustration arose, however, from the multivariate and often indirect nature of what district personnel do to influence school improvement, and the difficulty of isolating the effects of any one variable on the actions and outcomes of the work of principals and teachers. Our overall conclusion is that there is no simple list of “to do” actions that will allow district leaders to create the conditions that promote improved instruction and student learning. Instead, district leaders' actions in relation to key policy conditions are highly interdependent and require “steady work” on multiple fronts. Most district policies and practices that can be linked to real improvements for teaching and learning evolve over relatively long periods of time; this finding points to the critical importance of patience and sustained, continual efforts aimed at improvement. That focus is present in the more successful districts (even where there have been leadership changes); it was distinctly lacking in districts with district leadership turnover or inconsistent policy development.

Our evidence for district-wide approaches to improving and sustaining the quality of teaching and learning pointed to some key challenges and trends faced overall and, in

particular, by higher-performing districts in our sample. Leaders in these settings were explicit about their commitment to ambitious learning goals for *all* students, not just for those not performing at acceptable proficiency levels. They spoke about the difficulty they face, however, in specifying and generating consensus for clear goals and plans for improvement in the learning of average and high-performing students and schools. It may be easier to focus improvement efforts on obvious problems than on successes, even when there are no guaranteed solutions to the obvious problems.

In higher-performing settings, district leaders are likely to be vigilant and strategic about sustaining good performance where it is happening. They engage in monitoring activities to enable early identification of student and school results and factors (e.g., demographic changes) that might jeopardize continuing high performance, and they take action. State accountability systems focus attention and resources on low performance and remediation, but in many school districts across the country district leaders are as much concerned, if not more, about sustaining good performance and about establishing agendas for student learning beyond proficiency scores on standardized tests. These concerns are rising as educators and policy makers continue to raise the AYP bar.

Increasing standardization of curriculum, instruction, and assessment appears to be a universal trend in the United States—at the district and state levels. Yet standardization does not yield the same performance results everywhere. Our evidence from higher-performing districts offers some insight into how standardization can contribute to high performance. In essence, standardization of expectations for curriculum and instruction (and even leadership practice) creates a platform for improving the quality of leadership, instruction, and learning. Using this platform, district leaders can develop support systems that promote quality implementation of the common expectations. The creation of such support systems takes time and skill, and it requires organizational learning to figure out what works well. Unfortunately not all districts benefit from the leadership continuity, skill, and resources needed to develop equally effective support systems in a context of standardized expectations.

From district leaders in our higher-performing settings, we have learned that once standard expectations for curriculum, instruction, and leadership are implemented and sustained with a reasonable degree of fidelity and quality, further improvement in the quality of teaching and learning is unlikely to be gained by doing more of the same. To reach the students not currently well served requires differentiated (not common) solutions grounded in local analysis of learning needs and circumstances of struggling students. In effect, in these districts, three levels of support for school improvement can be observed, in addition to bureaucratically prescribed inputs. Level One encompasses common inputs to all schools to develop the basic knowledge, skills, and resources necessary to understand and work towards district expectations. Level Two supports efforts to provide additional input and assistance to schools and school personnel that are at risk or struggling to meet expectations for professional practice and student achievement. Level Three supports are the most complex. At this level, district and school personnel may undertake collaborative inquiry into important problems, and engage in a search for solutions that go beyond current knowledge and expectations.

Implications for Policy and Practice

Six implications for policy and practice emerged from this section of our study.

1. District leaders need to establish clear expectations across multiple dimensions of improvement activity as the bases for increasing coherence, coordination, and synergy in the effectiveness of district improvement efforts over time.
2. District leaders should combine a common core of support for efforts to implement district expectations with differentiated support aligned to the needs of individual schools.
3. District leaders are encouraged to embrace and discuss ways in which effective school-leadership practices can be acquired through intentional leadership-development efforts that include both formal professional development activities and collegial work.
4. One of the most productive ways for districts to facilitate continual improvement is to develop teachers' capacity to use formative assessments of student progress aligned with district expectations for student learning, and to use formative data in devising and implementing interventions during the school year.
5. Districts should strive for continuity in district leadership. Such continuity is integral to the development and implementation of a coherent and effective support system for improving and sustaining the quality of student and school performance.
6. District leaders need to take steps to monitor and sustain high-level student performance wherever it is found, and to set ambitious goals for student learning that go beyond proficiency levels on standardized tests. Focusing improvement efforts solely on low-performing schools and students is not a productive strategy for continual improvement in a district.

2.7 A Synthesis of Implications for Policy and Practice about District Leadership

Implications for District Policy Making

1. *Develop district policies and clear expectations that support community and parental engagement.* While policies have an impact, our findings also suggest that the impact will be limited if policies are promulgated without regard for incentives principals may need to increase the influence of parents and community members within schools. Incorporating indicators of parental and community involvement into principal assessment practices may be warranted.
2. *Develop a professional development policy and strategy for principals and district administrators.* Support for principals is perceived as high in the districts we studied, but opportunities for significant professional development tend to be informal and unsystematic. While we know that adults learn best through experience, districts must provide a framework for individual and collective growth if they are to realize the full potential of their principals.
3. *Focus policies and strategies on district priorities that are connected to student learning.* These priorities include instructional and curriculum leadership, uses of data, and teamwork and shared leadership focused on improvement objectives. Although these leadership practices are connected to student learning, until very recently they were weakly covered in most principal licensure programs causing many practicing principals to have limited knowledge in these areas.
4. *Individualize policies that provide support for schools.* Recognize the importance of different school contexts, whether they are a result of demographic characteristics, administrator experience, school size, or school level. One-size-fits all policies will not lead to building confidence, and will be less likely to encourage schools to be reflective about their own capacities for redesigning their organizations to meet very local needs.
5. *Redesign human resource policies related to school leadership.* While districts cannot control all aspects of the performance of school-based leaders, serious consideration should be given to recruitment practices, discouraging turnover, planning for effective leadership transition when turnover occurs, and redesigning principal evaluation procedures to focus on aspects of leadership that are most critical for student learning.
6. *Develop clearer policies governing data use, including priorities.* These should include expectations for additional data collection at the district and school levels to ensure that relevant data are available to principals and teachers in a timely fashion.

Implications for District Practice

1. *Be crystal clear and repetitive when communicating the district's agenda for student learning.* Effective superintendents are visible and articulate, but they also work with others in the district office so that the message is conveyed by all.
2. *Provide increased opportunities for administrators to collaborate on common work.* Without collaboration, principals' collective sense of efficacy is unlikely to increase. In addition, as with teachers, collaboration is associated with increased job satisfaction and motivation.
3. *Provide a wide range of intensive opportunities for teachers and school-level leaders to develop the capacities they need to accomplish the district's student-learning agenda.* These opportunities will often take place in schools and be aimed at meeting pressing challenges unique to individual schools.
4. *Support principals, particularly those new to the district or school, in providing aligned forms of leadership distribution that build on existing strengths.* Use distributed leadership support to help create a stronger sense of stability in the improvement agenda for the school and district.
5. *Provide assistance for teachers and school-level leaders in accessing, interpreting, and making use of evidence for their decisions about teaching and learning.* Minimal support for evidence-based decision making in schools will not do much to influence student learning, but will take time. Increased support will be especially important for secondary school staffs, where state testing data is typically more limited, and data must be examined at the department, as well as the school and grade levels.
6. *Spend time in schools.* Most principals report that the administrators who evaluate them rarely visit their schools (other district staff members, such as content specialists, may be more visible). Use school visits as well as district meetings to help build principals' sense of efficacy or confidence in their abilities to accomplish the priorities for student learning agreed on in the district.
7. *Differentiate the support provided to schools in light of schools' individual priorities, strengths, weaknesses, and circumstances.* One-size-fits-all district interventions are typically of much less value to schools than many districts believe.
8. *Gather data about how well district policies are working at the school level.* Work continually to increase synergy among district policies, procedures, and practices aimed at guiding and supporting the district's agenda for student learning.
9. *Ensure coordination and coherence in support for schools across different organizational units at the district level.* Schools benefit from coordinated support provided in relation to district goals and based on shared understandings of school-improvement plans and needs

10. *Prioritize assistance and support to secondary schools.* Secondary school administrators need significantly more support in all areas of practice that we have discussed in this and previous sections.

Part Three

State Leadership and Relationships with Districts

Preface

An investigation of leadership for school improvement and student achievement would be incomplete if it did not attend to the role of the states. Over the past three decades, the states have played an increasingly active role in promulgating policies to promote change in the education systems for which they have constitutional responsibility. In addition, policy makers and educators have viewed policy initiatives in light of their obligation to foster economic growth and social goals. But in matters of K-12 education, the United States has a long tradition of local autonomy, and muscular new efforts to launch systemic reform have not always been received with enthusiasm by schools and districts. Leadership at the state level entails dealing with policies and practices that may seem far removed from people whose interest in schools is immediate and concrete—individual students and parents, for example. State-level leaders are charged with formulating policies that will frame practice in districts and schools more broadly, according to the public interest, and to provide incentives and sanctions for local implementation of those policies. Tensions have been inevitable in these efforts, which have left no state untouched.

How might these efforts be characterized? Scholarship about the relationship between policy leadership and complex social change presents three main images.²⁴¹ A *technical policy perspective* is found in most policy analysis texts; it is generally associated with rational choice models.²⁴² Policy leaders should, according to this perspective, focus on rational choices to be made once a policy issue is on the agenda. Another image emphasizes a *political perspective*, focusing on a naturalistic explanation of how policies are made. The indeterminate nature of leadership in the course of policy making, and the slippage that occurs as policy refinements accrue during implementation, help to explain how policies succeed or fail.²⁴³ Particular instruments used to reformulate policy are less important, according to this perspective, than understanding how a particular policy issue got the governor's or the legislative committee's attention in the first place.²⁴⁴ A third image, the *practitioner perspective*, emerges from studies of public-sector administrators; it examines the tendency of administrators to seek flexibility and autonomy in interpreting policies, and ways in which this tendency affects the broader process of change. Professionals who will be affected by proposed changes often see new policies and regulations as distractions from or add-ons to their "real work," and therefore interpret those policies to fit their needs.²⁴⁵ Rather than being passive recipients of policy, they are actors in the process of making policy. Professionals in schools, for example, have opportunities to pick and choose among the inducements and constraints that are

²⁴¹ Louis (2007a).

²⁴² Ostrom (1999).

²⁴³ Kingdon (2003).

²⁴⁴ Sabatier & Jenkins-Smith (1993).

²⁴⁵ Weatherly & Lipsky (1977).

offered by policies to further their own interests²⁴⁶ as they orchestrate the *local* policy process.²⁴⁷

Each of these perspectives has validity—that is, each describes and explains certain aspects of policy work. But the perspectives are seldom integrated in studies of policy leadership. This observation has influenced us in our formulation of the following key questions about leading and managing educational change:

1. How do issues get defined and taken seriously as policy options at the state level?
2. How do clusters of policies—systemic efforts at shaping educational reform—get embedded in state agencies and transmitted to create a local impact?
3. How does local autonomy on the part of district and school leaders shift the process of systems change?

In Part Three we examine variations among state legislative and gubernatorial leaders (Section 3.1), and state education agencies (Section 3.2), in how policy leadership is undertaken, and we examine consequences of the variations. We also describe, in the context of policy work, differences in the relationships found among schools, districts, and states (Section 3.3)—differences that range significantly in their apparent value for fostering improvement in teaching and learning.

Adopting a political science framework focused on policy cultures and policy levers in, we show in Section 3.1 how *different* policy cultures can be, from state to state, and how stable they can be over time. We also identify wide variations across a sample of states in the policy instruments they choose to employ. We conclude, in part, that few states develop comprehensive approaches to education reform, and that the quite general direction states provide to state education agencies (SEAs) and districts offers limited guidance for specific approaches to improving teaching and learning.

State-level leadership is not confined to legislative action. SEAs play an important role in interpreting policy and providing support and guidance to districts and schools. The evidence we present in Section 3.2 shows that SEAs serve as the primary agencies for translating state mandates into action. In their work, SEAs now are increasingly occupied with creating partnerships to deliver technical assistance to districts, especially districts with profiles of weak student achievement.

In Section 3.3 we provide accounts of how districts interact with state and federal policies. These policies, our evidence suggests, have modest but important effects on local districts' efforts at planning for improvement. Typically, district and school leaders agree with the general intentions expressed in state and federal policy, but they exercise considerable discretion in implementing policies, taking care to honor local priorities in the process. We provide a synthesis of implications for policy and practice in Section 3.4.

²⁴⁶ Honig & Hatch (2004).

²⁴⁷ Wallace (2003).

3.1 State Political Cultures and Policy Leadership

Key Findings

- All states are exercising policy leadership intended to improve teaching and learning.
- State policy leadership for improved teaching and learning often predates, by a decade or more, the enactment of the No Child Left Behind (NCLB) Act.
- Across the states, there is strong demand for increased leadership activity at the state level. The common pattern of demand, however, does not translate into similar policies among the states.
- Policy instruments used to improve teaching and learning vary from state to state.
- Because few states have adopted comprehensive approaches to reform, state policy provides agencies and school districts with general directions for improving teaching and learning, but guidance for more specific means of achieving the goals in question is limited.

Introduction

We focus here on our first question: How do issues get defined and taken seriously as policy options at the state level?

Prior research on the states' role in education can be sorted, roughly, into two categories. In one category, researchers look at the degree to which state policies are coherent and clearly focused on the objective of improving teaching and learning. In the other, researchers emphasize the limitations of state leadership, looking at ways in which state policies are filtered through different processes arising from external events and constituent preferences. We take a slightly different approach, investigating (a) *how* state education policies are made, (b) whether the *process* of policymaking is related to the policies that are emphasized, and (c) how policies are used by, and affect, educators at the local level. In taking this approach, we have sought to combine two of the images described in the Preface to this Section. First, we have looked for evidence of rational choices made by state leaders, particularly governors and legislators, in response to changing public demands and new data, increasingly available to policy makers, about student achievement and school performance. Second, we have used a "naturalistic lens," looking at the way in which various actors influence the choices that are made.

Over the last 25 years, there has been a distinct shift in the locus of education policymaking from the local to state level. While there are differences in how states have exercised control over local decisions,²⁴⁸ this shift is observable everywhere.²⁴⁹ In particular, during the last decade or so, all states have become participants in the accountability movement that has led to state curricular standards and assessment programs, with requirements that local districts report their student-learning results. Some states, like Texas and North Carolina, have been particularly active in developing coherent systems of standards, tests, and positive or negative sanctions, while others, like Iowa and Nebraska, have preferred to emphasize voluntary collaboration. The new state activism and the NCLB have captured the attention of local leaders, who must now adjust their priorities to the priorities of policy makers in state capitols and elsewhere outside the local area. While some regard the NCLB Act as exemplifying a further, major shift in governance from the states to the federal government, the states to date have retained authority to determine implementation measures for fundamental elements of the Act. The resulting patchwork of responses has reinforced some important educational differences among states.²⁵⁰

We know today that states must demonstrate compliance with NCLB, but we know much less about particular ways in which states cope with their responsibility (some would say opportunity) to comply. We know even less about the states' approaches to the analysis and use of test scores and other sources of data at the school level. Thus, while many observers have pointed to the increased potency of the state as a political actor in educational policy,²⁵¹ the role of states in interpreting national legislation has been treated less extensively. Most reports on differences among the states are descriptive, although some analysts suggest that rigorous state accountability systems can raise student achievement.²⁵² How they might do this has not, however, been explored in detail. We lack detailed, comprehensive information about the ways in which states are interpreting federal legislation and exercising leadership in adapting legislation to specific circumstances and needs arising in their schools.

The following specific questions drove this part of our study:

- Are there differences among states in the way in which legislative policy has evolved to address the broad goal of improving teaching and learning?
- If differences exist, what implications do they have for the role of local school leaders and other stakeholders who have legitimate interests in shaping policies and practices that might foster improvement in teaching and learning?

²⁴⁸ Timar (1997); Tyack & James (1986).

²⁴⁹ Clune & White (1992); Reeves (1990); Timar & Kirp (1988).

²⁵⁰ Stecher et al. (2008).

²⁵¹ Clune (1987); Reeves (1990); Timar & Kirp (1988).

²⁵² Carnoy & Loeb (2002).

Previous Research

To explore the role of state leadership, we draw on literature that examines state policy making. This includes studies of the states' role in promoting quality education, studies of state policy cultures, and studies of policy instruments available to states. We draw on two sets of research: one examines the role of political culture in determining the process and characteristics of state policy leadership; the other examines the policy instruments that are used to motivate change.

State Political Culture

As states work to develop policies to improve education, political culture plays a role in determining how they balance conflicting expectations and opportunities. State-specific studies show that political culture and accumulated history help to predict the dynamics and outcomes of legislation.²⁵³ A state's political decisions are visibly affected by power, but decision outcomes, particularly in the case of complex policies, are only modestly predicted by the preferences of those with the deepest pockets and legislative majorities. Rather, culture affects outcomes by creating a context in which decisions are made.²⁵⁴

State political culture is more than the aggregation of individual preferences and values. It is reflected in social awareness, observable in repeated patterns of behavior during the policy-making process.²⁵⁵ We can "see" culture in the history of public discourse, repeated actions, and expressed preferences of groups—all of which form a context in which legislators and others act.²⁵⁶ Usually defined as the enduring political attitudes and behaviors associated with groups that live in a defined geographical context,²⁵⁷ political culture persists over time, influencing states as they address issues old and new.

Elazar's early classification of the political cultures of U.S. states posited three global "types" that are still viewed as relevant in more recent studies: "moral" (emphasis on the importance of society and the role of the government in preserving the public good), "traditional" (emphasis on the importance of social and family ties with government see as an important means of preserving the existing social order), and "individualistic" (the role of government should be limited to areas that promote private initiative). Building on Elazar's types, later analyses of policy development, informed especially by Herzik (1985), reveal four dimensions of political culture that underlie the three types:

1. *Openness*: broad political participation, as contrasted with constrained participation or elite dominance.

²⁵³ Lee (1997); Mazzoni (1993); Sacken & Medina (1990).

²⁵⁴ Berezin (1997).

²⁵⁵ Chilton (1988).

²⁵⁶ Wirt et al. (1988).

²⁵⁷ Elazar (1970); Lieske (1993).

2. *Decentralism*: distributed power sources (no one center), as contrasted with concentration of power in the legislature or governor's office.
3. *Rationalism*: policies based on comprehensive and/or coherent solutions to social problems, as contrasted with multiple, unrelated initiatives or limited government activity.
4. *Egalitarianism*: persistent policies to redistribute resources to minimize disparities, as contrasted with limited efforts in redistribution.

Each dimension implies a corresponding pattern of political behavior. For example, in open political cultures the general public influences the operation of government entities and political processes; closed political cultures have more stringent requirements for participation, yielding less public influence. States tending toward rationalism enact comprehensive programs (for school reform, e.g.) to solve specific problems, while states tending toward decentralism place more emphasis on local control and choice.²⁵⁸ The long-term effects of culture may not be visible in every legislative session, because no government is entirely consistent. However, they become apparent over longer periods of time.

Education research underscores the significance of Herzik's dimensions, and points to their relevance for understanding state education policy.²⁵⁹ Recent analyses also point to emerging norms and values that may be important for understanding how and why various issues dominate the education policy process.²⁶⁰ Accordingly, we add two dimensions to Herzik's formulation:

5. *Efficiency*: an emphasis on cost-benefits analysis, the application of business models, and optimization of policy performance, as contrasted with limited attention to weighing benefits against cost.
6. *Quality*: an emphasis on an elaborated state role in providing oversight and monitoring the quality of public services, as contrasted with a less systematic, laissez-faire approach to determining quality.

Policy Levers

An underlying problem—how policymakers can use blunt tools to achieve more subtle ends—has been noted by researchers in political science²⁶¹ as well as education.²⁶² The levers politicians choose are critical because legislation must be acceptable to the electorate at large (“No new taxes!”), but it must also provide appropriate incentives or tools to those who must implement them (“No unfunded mandates!”). The premise that there are multiple but limited ways to achieve the same end is critical to our way of

²⁵⁸ Timar & Kirp (1988).

²⁵⁹ Amrein & Berliner (2005); Febey & Louis (2009); Stecher et al. (2008); and Wong (1989).

²⁶⁰ Wirt et al. (1988); Wood & Theobald (2003).

²⁶¹ Woodside (1986).

²⁶² McDonnell & Elmore (1987); Woodside (1986).

thinking about political culture. States may differ from one another in the instruments they use to achieve a goal that they all espouse, such as equity in education. One example can be found in school finance. Variation in finance strategies persists as a result of enduring patterns of legislative politics, structural limitations, economic constraints, and legal contexts.²⁶³ Owing to political and economic pressures, policymakers typically use a narrow range of levers that they believe are likely to produce positive short-term results.²⁶⁴ States have struggled, therefore, with finding appropriate longer-term policy mechanisms to influence teaching and learning—the main focal point of education policy, but also the area most resistant to change from outside the school.

In our initial analysis, we made use of use four policy instruments described by McDonnell and Elmore (1987, p. 137):

1. *Mandates*: enacting laws, regulations, and requirements, including sanctions.
2. *System change*: legislating restructuring; changing governance or legal/financial relationships, including the provision of new alternatives.
3. *Capacity building*: using professional development, providing access to new information or data, and developing leadership.
4. *Inducements*: providing financial aid (targeted or general), special grants programs, and other investments in the human or physical infrastructure.

New Evidence

In investigating state legislative leadership, we focused on two questions:

- Are there differences among states in the way in which legislative policy has evolved to address the broad goal of improving teaching and learning?
- If differences exist, what implications do they have for the role of local school leaders and other stakeholders who have legitimate interests in shaping policies and practices that might foster improvement in teaching and learning?

To carry out this analysis we talked to people who are active in formal or informal policy leadership. We conducted interviews in the 10 states of our larger sample (including Mississippi for our state-level data collection). At the legislative level, we interviewed between eight and eleven people in each state, including the chairs of senate and house education committees, a representative of the governor's office, and various stakeholders, including business people and people representing professional associations, unions, higher education, and at least one "policy entrepreneur" who had a long history of observing and participating in policy discussions at the state level.

²⁶³ Wong (1989).

²⁶⁴ Elmore & Fuhrman (1995).

We analyzed our interview data to develop a “policy culture profile” for each state. The profiles include the following elements:

- A list of key actors who influence education policy making over multiple policies that all respondents considered important.
- The degree to which the state took an active role in setting directions for improvement at the local level.
- The process by which key actors influence the content of educational policy, particularly policy relating to standards, accountability, and leadership for improvement.

We verified each analysis by checking facts, using the World Wide Web; in several cases, we also used an informant who, while not a policy actor, has studied state education policy. A sample of three states is shown in Table 3.1.1. We selected this sample from the larger set of ten cases because the three sample states illustrate diversity in state political culture.

Table 3.1.1
State Political Cultures and Policy Instruments Directed at Increasing Student Achievement

	Indiana	Oregon	Nebraska
Political Culture			
1. Openness	Very open	Very open	Very open
2. Decentralism	Centralized	Balanced	Decentralized
3. Rationalism	Rationalized/ comprehensive for leadership development and accountability	Rationalized/ comprehensive for accountability; limited in leadership	Some movement toward rationalism for accountability; limited in leadership
4. Egalitarianism	Moderate emphasis; focus on within- school equality	Moderate emphasis; focus on school- finance equalization	Limited emphasis on egalitarianism
5. Efficiency	Moderate emphasis on efficiency; thematic and not embedded in policy	Little emphasis on efficiency	Moderate emphasis on efficiency; thematic and not embedded in policy
6. Quality	High emphasis on quality; many state policies to promote and assess quality	High emphasis on quality; responsibility shared between state and districts	Moderate emphasis on quality; responsibility rests with districts
Policy Instruments			
1. Mandates	Many mandates; most with state funding	Moderate emphasis on mandates; little state funding	Very limited mandates
2. System Change	Strong/persistent efforts	Modest initiatives	Limited initiatives
3. Capacity Building	Strong emphasis on state-funded capacity building	Limited state-funded capacity building – indirect	Limited state-funded capacity building – indirect
4. Inducements	Limited	Limited	Limited
State Leadership Patterns			
1. The Key Actors	Inner: Governor, Commissioner, General Assembly Near: State Board of Education, Education Roundtable	Inner: SEA, Board of Education, Oregon Business Council, Oregon Education Association, State Universities Near: coalitions and professional groups	Inner: Legislature, Governor, Commissioner Near: A variety of business and farm groups, professional and community organizations

	Indiana	Oregon	Nebraska
2. Emphasis on Setting Direction	High. Key role of elected officials; state agencies equally involved; seen by all as influential.	Moderate. Citizen initiatives and tradition of local input place limits on role of state.	Low but increasing. The state is not seen as a source of leadership for innovation and improvement.
3. How Influence Is Exercised	Influence exercised through centralized but public discussion; use of mandates with funding. Incorporation of educational and business sector voices leads to low conflict over education policy leadership.	Influence exercised through both central and more localized public discussion; influence exercised by many groups that are not part of state government. Networks of influence are well connected, but diffuse.	Only the Commissioner of Education is seen as a consistent source of state influence; other actors move in-and-out, depending on the issue. State influence operates almost exclusively through discussion and consensus building.

Results

Comparisons across the states warrant five claims, which we elaborate below.

States Are Leaders

All the states in our sample take their legislative leadership role in improving teaching and learning seriously. All had enacted significant legislation related to setting standards and establishing school-improvement strategies well before NCLB. Top legislative priorities in these states include education finance, educational improvement, and curricular standards. In addition, except for respondents from one state, respondents believed that states, not the federal government, were driving leadership efforts aimed at improving teaching and learning. Respondents in almost all states argued that they were able to incorporate NCLB requirements into initiatives they had already put in place. Nebraska, which resisted efforts to develop a state test, is the only exception.

Differences in Leadership Patterns and Policy Processes Are Enduring

In spite of the widespread view that federal initiatives are undermining the states' role in education, there is still a great deal of variation in education policy and practice among the states. States differ from one another in the nature of specific reform policies they adopt and in ways in which policy proposals find their way on to the policy agenda and into legislation. There are well-established differences in processes of policy development, the specific levers used, and the ways in which states attempt to influence districts and schools. Moreover, state-level activity in support of leadership and accountability appears to reflect the distinctive political cultures of the respective states. States that appeared to be "traditional" in the 1970s continue to be so today, while those that were more "individualistic" have changed very little. Only one state in our sample

(New Mexico) was engaged in an effort to challenge entrenched policy-making practices, and it is unclear whether that effort—led at the time by the governor and a legislator—will be successful.

States Vary in Whose Voices Are Most Prominent in Legislative Leadership

In some states, leadership reflects the preferences of “political elites,” including the governor and legislators. In other states, the range of influential parties is broader. This is a difference that makes a difference. Where more voices are heard, state policies are more likely to provide leeway for districts to make decisions based on local needs and interests. The issue of power in policy formulation is important, but additional empirical research on how diverse voices are included in or excluded from policy deliberations during the policy formation process.

Comprehensive, Rationalized Policies for School Improvement Are the Exception Rather than the Rule

All states acknowledge responsibility for improving teaching and learning. In our sample, however, only three states had adopted an approach that could be categorized as systemic and comprehensive rather than incremental. In other words, in Table 3.1.1, Indiana represents the exception rather than the mainstream. In most states, support is strong for allowing multiple, local voices to shape the policy agenda, and efforts at systemic change are limited. State-level leadership has become increasingly important; at the same time, most states have been reluctant to make radical changes to systems that have historically been decentralized.

Mandates Are the Most Common Feature of Legislative Leadership; Inducements Are the Least Common

Mandates, largely unfunded, are the most common feature of state education policy, and this pattern predates the requirements of the No Child Left Behind national legislation. In all but one of the states, for example, state testing mandates and/or required state curriculum standards pre-dated NCLB. A small number of states have used levers intended to create modest system change.²⁶⁵ For example, Indiana adopted a 5 point educational quality indicator system in 2001, and merged its independent Teacher Professional Standards Board into the Department of Education in 2005. Only a few have made sustained efforts at capacity building (such as Missouri’s 1993 Outstanding Schools Act provided funding for a state-wide teacher professional development system, or New Jersey’s provision of significant additional resources to high poverty “Abbott” school districts). There has been little formal change in legislative attention to capacity building since the passage of NCLB. As we shall see in the next Section, however, capacity building has become prominent in efforts made by state education agencies as they respond to NCLB requirements. None of the states relies extensively on inducements.

²⁶⁵ We exclude charter school authorization from our analysis of system change levers. In 1991 Minnesota passed the first charter school law in the United States.

Implications for Policy and Practice

Five implications for policy and practice emerged from this section of our study.

1. Federal leadership, backed by new legislation and widespread demand for education reform, has not to date been sufficient to ensure across-the-board patterns of improvement in teaching and learning. The states have enacted a patchwork of standards and tests in their various efforts to improve teaching and learning. This variability pre-dated NCLB,²⁶⁶ but this study confirms the observation that federal legislation has not substantially diminished differences.²⁶⁷
2. In formulating education policy, states continue to use practices deeply embedded in their particular traditions and political cultures. History and culture will continue to play a mediating role in efforts to rationalize education policy.

State leaders respond to longstanding preferences about how policy decisions should be made. It is unlikely, even given federal efforts to coordinate education policy, that state legislative or gubernatorial leadership will become more rationalized. A state's political culture does not preclude adjustment in policies based on broad social preferences, but these adjustments will continue to be filtered through, for example, interest-group lobbying, elite preferences, and broad public discussion in efforts to reach consensus.

3. We will continue to see variation across states in levels of student learning for some time. Many states operate with a limited set of instruments to bring to bear on the task of improving and strengthening education policy. Given that states tend not to change governance practices easily or rapidly, current patterns of variation are likely to persist.
4. As long as states play the lead role in education policy making, their actions will have significant implications for other actors with greater access to levers for change. These actors include, of course, the local districts that must incorporate state and local laws into their own sets of policies; they also include state education agencies (SEAs).

Most SEAs play a significant role in adjudicating increasing demands from state and federal legislation for accountability and testing; many also assist districts in shaping standards and curriculum, while local schools districts are responsible for adapting to legislation and regulations from state and national levels. The way in which SEAs and local educators have adapted to state initiatives will be the focus of the next two chapters.

²⁶⁶McDermott (2003).

²⁶⁷LeFloche et al. (2007).

5. Districts respond to state leadership initiatives, but districts are also actors in the legislative process, usually indirectly through professional associations. In interaction with legislators, often through professional associations, district leaders may shape policy by emphasizing points of interest that condition how they incorporate state policy into their districts' agendas. (This issue is explored in more detail in Section 3.3.)

3.2 The Changing Leadership Role of State Education Agencies

Key Findings

- State Education Agencies (SEAs) report major shifts in the focus of their work brought about by state and federal standards and accountability legislation.
- The greatest shift has been in the agencies' monitoring functions, from inputs to outputs.
- SEAs are putting more energy into partnerships for delivering technical assistance to districts.
- SEAs increasingly target technical assistance and support to districts with records of low student achievement.
- SEAs are required to take on new roles during a period of cutbacks in funding.

Introduction

In this section we address our second question about the state's leadership role in efforts to improve teaching and learning: How do clusters of policies—systemic efforts at shaping education reform—get embedded in state agencies and transmitted to create a local impact?

We approach this question by focusing on state education agencies (SEAs). SEAs play an important role in interpreting policy and providing support and guidance to schools. In current national dialogues about school improvement, SEAs have increasingly been asked to provide oversight and support for districts in their efforts to meet ambitious goals for increasing student achievement.²⁶⁸ SEAs also clarify education policy for districts.

We focus on two areas:

- How do key SEA staff members see their role in respect to the goal of improving teaching and learning? What activities define the role of SEA staff members as policy actors and administrators across the states?
- How are SEAs responding to increased responsibilities in a time of diminishing resources?

²⁶⁸Education Alliance (n.d.).

Prior Research

SEAs have maintained a leadership role in education for more than 150 years.²⁶⁹ As mediating institutions between state governments and local districts, their legitimacy and impact on public education has varied greatly.²⁷⁰ Recently, national reform efforts have enhanced the SEAs' role as agents for change. However, the capacity and influence of the SEAs has been contingent on federal initiatives that support their leadership.²⁷¹ For example, Title V of the Elementary and Secondary Education Act and Chapter 2 of the Education Consolidation and Improvement Act provided funding and legitimization for the administrative role of SEAs.²⁷²

Until recently, little empirical research has been done on the leadership role of SEAs.²⁷³ In some circles there has been a misguided assumption that SEAs are passive agents in reform initiatives.²⁷⁴ Some researchers have omitted SEAs from the roster of participants in policy activity, focusing solely on the federal government, state governments, school districts, and schools.²⁷⁵ Other researchers have explained that leadership activity by SEAs varies greatly across states.²⁷⁶

Recent research has begun to cast SEAs in a new light, providing empirical evidence to show that SEAs increasingly act as agents for quality assurance in reform initiatives, particularly when state governments fail to do so. Still, we know little about the complex nature of SEAs' mixed roles in policy, administration, support services,²⁷⁷ and political activity.²⁷⁸ In this mixed batch of scholarship, what stands out, in respect to our research, is that SEAs play a pivotal role mediating between localism and federalism in education policy and practice.

The challenges for SEAs are great. They are not always well structured or well equipped for their responsibilities. Participants at a recent symposium at Brown University identified some of the problems:

- **Departments within SEAs operate as silos; there is little collaboration or communication across departments and districts.**
- **It is difficult for SEAs to provide technical assistance to districts, given that their primary role has been to monitor compliance.**

²⁶⁹ Timar (1997).

²⁷⁰ Timar (1997).

²⁷¹ Fuhrman & Elmore (1990); Timar (1997).

²⁷² Fuhrman & Elmore (1990); Timar (1997).

²⁷³ Hamann & Lane (2004); Louis & Corwin (1984); Manna (2004); and Walker (2004).

²⁷⁴ Hamann & Lane (2004); (Louis & Corwin, 1984).

²⁷⁵ Fowler (2000).

²⁷⁶ Dentler (1984); Louis & Corwin (1984).

²⁷⁷ James (1991).

²⁷⁸ Manna (2004); Timar (1997).

- **SEAs have difficulty hiring the right people to do the work of supporting district-level activity aimed at improving teaching and learning.**²⁷⁹

SEAs evolve within the social and political traditions of their respective states. They are embedded in state policy cultures. They are nonetheless moving forward in the current context of reform activity. In this sense, like the states, they are responding to rising pressure to increase accountability and improve student learning. They are enhancing their oversight of school programs, providing more support directly to districts and school staff, and increasingly targeting districts in distress for assistance. For each of these three key themes, our analysis will highlight states that exemplify the emerging role of the SEAs.

New Evidence

In each SEA, we interviewed between two and four people who were directly responsible (their actual titles varied) for relevant units dealing with accountability, testing, school improvement, curriculum, and standards. We conducted a total of 29 interviews, by telephone, in the summer of 2008. Each interview lasted about an hour. We transcribed the interviews and coded the transcripts according to themes implied by two main questions:

- How do key SEA staff members see their role in respect to the goal of improving teaching and learning? What activities define the role of SEA staff members as policy actors and administrators across the states?
- How are SEAs responding to increased responsibilities in a time of diminishing resources?

The Changing Leadership Roles of SEAs: Oversight and Monitoring.

During the early (pre-NCLB) standards movement that swept across the U.S. education system, the statutory role of SEAs expanded to emphasize academic achievement and the evaluation of district and school personnel (including teacher licensure). This shift, supported by new uses of technology and database development, is most evident in SEA work related to new accreditation processes. As SEA workloads have increased, SEA staff members have focused increasingly on tasks related to legislated curricular standards and assessment systems.

Re-evaluating the process of evaluation: Interpreting state mandates. Across the states, quality education is defined by student performance on exams and preparedness for college, workforce, or the military. A state's ability to provide a quality education is often measured through evaluation and monitoring via state accreditation processes. These processes focus on the quality of school operations, instruction, governance, personnel, financing, student performance, and school safety. Accreditation processes

²⁷⁹ **Education Alliance (2008).**

have a long history. Across the states, however, new policies have strengthened systems for evaluation and monitoring. One result has been increased attention to schools in need.

The states have not responded uniformly to new accountability requirements. In Missouri, for example, respondents indicate that accreditation used to be compliance-driven, with similar evaluation standards and processes applied to each school. With the advent of new accountability requirements, however, things changed. Within the SEA, staff members engaged in new discussions about problems related to struggling schools, where SEA support seemed inadequate and performance levels remained low. A consensus emerged within the agency about the need to direct resources to the neediest schools. A pre-requisite was more reliable accreditation measures, which accurately reflected school performance. As a result, the SEA developed a new model for evaluation. The new model, one interviewee said, “makes it more clear which districts are in the most need. High-performing schools are waived on some performance standards to allow our office to focus energies on schools in need.”

New Jersey, in contrast, has a long history of legal decisions related to school funding and performance. This history has had a powerful impact on the New Jersey Department of Education (NJDOE). The *Abbott vs. Burke* decision (1985) prompted the NJDOE to focus its efforts and resources on 31 low-income/low-performing school districts. For more than two decades, the NJDOE targeted most of its resources to these “Abbott Districts,” assuming complete responsibility for oversight and governance in three large districts.

While Missouri has just begun to differentiate among more- and less-needy districts, New Jersey is moving in a different direction. In 2005, the state legislature passed the New Jersey Quality Single Accountability Continuum (NJQSAC) Act. This legislation changed the role of the NJDOE by expanding the types of districts that can receive support from the state. The intention was to shift the focus from the 31 Abbott Districts, which were generally larger districts in a state that is dominated by very small districts. The Act also provides for more monitoring by the SEA, which is required to evaluate schools in five critical areas (operations management, instruction and programs, governance, fiscal management, and personnel) every three years, as opposed to every seven years under the former system. Since 2007, the DOE has been able to support districts that were once overlooked. As one respondent pointed out, this also requires “unlearning”:

That’s one of the things that we’ve learned in the very short time—the 14 months—is that we have a lot of history in dealing with troubled districts, but we’ve worked with them in a different way. And now we’re, under QSAC, we have an obligation to work with all the districts This year...we have districts that [have a] single buildings. So we are learning how to deal with very small schools and districts that have the same, oftentimes very similar problems but don’t have the personnel or the infrastructure.

Building trust: Eliminating the boogey man and humanizing state leadership. For different reasons, SEA staff members believe that they do not have a favorable image among district and school staff members. Not surprisingly, SEA respondents from across the states explained that they are often met with feelings of trepidation among local staff when it is their turn to go through the evaluation process. Respondents also explained that they are taking an active approach to dispelling such feelings by efforts to build trust. Because of the contentious environment that surrounds evaluation and monitoring, respondents said, the effort to build trust is a key component of their more general effort to help schools and districts identify areas in need of improvement. One Mississippi respondent spoke for many:

Initially, we're not received real well... . Because they think that we're coming to "get 'em." So we have to go in and do a lot of, kind of a, what I call almost a PR kind of campaign to let them know it's not a "gotcha" kind of a process. We're here to help you figure out what are some things that are likely causing the test scores to be low and then how are we going to fix them so that we can advance the achievement of these students and move the academic performance of the school and the district forward. So, once we leave, we're pretty well received. Actually, most of the time, they don't want us to leave; they want us to stay there with them. But initially, it's a little rocky.

Respondents in about half of the states we sampled explained that focusing on relationships and customer service was a priority established by their current state superintendents. A slightly smaller group claimed that relationship-building initiatives were initiated by their offices—i.e., were not driven by departmental policy. Irrespective of whose priority the shift to "customer focused" work had been, most respondents explained that building trust was a response to the strained relationship, which had developed in the early years of the accountability movement, between the state and the districts. Here is one respondent's reaction:

I would say that there are improved relationships with the districts... . They understand that we're not just there to point a finger and say, "Ah, you did that wrong, that wrong and that wrong." ... [Y]es, we all have to be in compliance with the federal and state statutes...[but]... we are also the technical assistance entity, more so...when I first came to the department. We represented a different authority that could come down and, you know, shut down shop if we chose to. But that's not the way we work and it's not the way we want them to see us.

Monitoring and takeover under resource constraints: The dark side of mandates. The purpose of state accreditation is to ensure that schools meet specific quality standards. In some states, if a district fails to meet requirements for accreditation, the state can take over that district. Three states in our sample have engaged in takeovers. But a takeover by an SEA is a drastic move that no state wants to make, in part because takeovers put a strain on resources. SEAs operate with relatively small staffs. In one state

we sampled, fewer than five staff members are responsible for the oversight of accountability and school-improvement plans of more than 30 schools, with dozens of schools being added each year. Across the states, staff members rely increasingly on other groups to aid in their oversight efforts. In Mississippi, retired professionals have been a key resource:

We go into the schools that are considered the lowest-performing schools in the state and try to help them with an outsider's point of view. We have 100-plus contract workers that are retired educators. . . ; and they're trained on these instruments, and they go in and evaluate these school systems to try to help them. . . figure out that these are some of the things that are possibly contributing to the low student test scores, low student achievement scores.

Missouri also goes outside the state system to use quasi-independent Regional Professional Development Centers to support oversight efforts. The need to do so arises primarily because of state cutbacks, which have meant substantial loss of SEA staff. At the same time (and partly as a result), the SEA has had to reorganize—to move staff away from working on specific programs toward a more general school-improvement strategy that all staff members can share in. However, the process of changing internal culture in the agency is slow, and it requires collaboration with other divisions. And at the same time, as one respondent pointed out, “Nothing has been removed.” Reliance on the Regional Professional Development Centers is a necessity, but it has had unanticipated benefits:

The [Regional Centers] view themselves as collaborative partners. They do monitor whether the district is doing what it said it would...and effectively for student achievement...but they can do this more than DESE staff because they have a working relationship with districts. They serve as critical friends...know the right questions to ask and can hold districts accountable.

Those states (e.g., Oregon, Texas and Nebraska) that have substantial regional agencies also use those agencies in providing professional development and assistance in meeting standards.

The Changing Roles of SEAs: Direct Support and Capacity Building for Districts and Administrators

Traditionally, school-improvement activity has emphasized professional development in curriculum and instruction, and compliance with state initiatives. Four of the states in our sample had legislatively initiated and well-established programs for administrator professional development prior to the beginning of our study (see Table 3.2.1). All, however, targeted principals and all delivered professional assistance and development through semi-autonomous units or through regional educational service agencies (RESAs)

Table 3.2.1	
State Policy Initiatives Related to Leadership Development	
Indiana	1985: Indiana Principal Leadership Academy (IPLA) established. Current program provides 18 days of professional development over two years to cohorts.
Missouri	1985: Leadership Academy established; 1987 amended to establish satellite programs across the state. 1993 gave the Leadership Academy responsibility for administering state funds for professional development; 1994 established regional professional development centers. The Leadership Academy was given major responsibility for developing and revising leadership preparation standards.
North Carolina	1984: Principal Executive Program established based on legislative task force recommendations. 1995: UNC-Center for School Leadership established by legislature. The Center incorporates the NC Center for the Advancement of Teaching, the Teacher Academy, the Principals' Executive Program and the NC Mathematics-Science Education Network.
Nebraska	No state level activity mentioned; training and support provided through regional service agencies (ESDs) on a request basis.
New Jersey	2004: Professional development initiative for school leaders. Applies to principals, superintendents, & "everybody that falls into a school administrator certification." Administrators must identify school leadership professional development goals, connect goals to improving teaching & learning, and develop a professional growth plan. At present: Inactive (there is a website, but no new information on it). SAELP grant not mentioned in policy interviews.
New Mexico	A number of initiatives proposed at various points; none was passed with funding. SAELP not mentioned in interviews, but is mentioned in legislative briefs. No evidence on state websites of any significant continuing activities.
New York	1999: Blue Ribbon Panel on leadership lead to establishment of leadership academy. Wallace Foundation grants used to focus on New York City; this leadership academy still very active. Major state focus is on teacher centers; leadership development outside of the NYC area is provided by RESAs (BOCES)
Oregon	No significant legislative action mentioned; 2004: Wallace Foundation grants resulted in six school districts across the state serving as "Demonstration Districts" for what was then known as "the State Action for Education Leadership." Participating districts expanded to 10, and formed the Oregon Leadership Network (OLN) .
Texas	1995: Texas Principals Leadership Initiative (TPLI) created by an education and business coalition and approved in 1995 by the state Education Commissioner, provides assessment-driven professional development for Texas principals. 2006: a principal academy (TXPEP) was funded by the state. Provides leadership professional development, coaching, mentoring to cohorts focused on quality management with a strong business focus.

The role of the SEAs in providing support to local educators has evolved. As noted above, SEAs now try to focus on growth, development, and school improvement—not merely on compliance—in working with districts. In examining this trend, we identified four themes emerging across the states: (1) Utilizing regional organizations and building central office capacity; (2) Building capacity with limited resources; (3) Blending mandates and capacity building; and (4) Changing technical assistance roles of SEAs: Targeting districts in distress.

Utilizing regional organizations and building central office capacity. Table 3.2.1 indicates that many states use Regional Educational Service Agencies (RESAs) to help provide important services as well as helping to provide oversight of districts and schools. In the case of states like Missouri, Nebraska, New York and Oregon and Texas, RESAs provide professional development services. In general, across all states that have them, RESAs are used for professional training, development, and instructional support.

The structure and position of RESAs in the educational system, and their relationship to SEAs, vary from state to state. Some exist as dispersed offices functioning as regional offices of the SEA (Texas). Some are quasi-independent entities that contract with the SEA (Nebraska, Oregon). Funding arrangements also vary; some quasi-independent RESAs may receive nearly all or only a fraction of their funds from the state (Missouri). Other RESAs are supported primarily by service-for-sale transactions with schools and districts. Respondents from three states below highlight the important role that RESAs play in supporting efforts to provide quality education:

It's not usually our agency officials that are going on to the site. It's usually some either Regional Education Service Center. We have 20 Regional Educational Service Centers in the state that we provide funding to them to do that. Or we have other non-profits that we grant funding to go and do that work for us. They are quasi. Their Executive Director reports technically to the Commissioner, but they have a separate Board of Directors and they also receive some state funding and other funding they generate on a fee basis from services they provide to school districts. They are sort of a quasi-governmental agency. (Texas Education Agency)

What we're doing in our unit is opening satellite offices in five different regions in the state, and we will work with existing educational partners, including those regional education cooperatives. Well, they'll support the schools, leaders, and teachers through the districts. They'll certainly work some with the schools, but to build local capacity we really work through the districts to support those schools. (New Mexico Public Education Department)

We wanted to use our ESDs; we wanted to use that regional structure because that's the one that closest to the action. ESDs are closer to districts than we are. And this was driven by diminishing capacity on our part, to be honest. We just did not have the capacity, either financial or

human, to work with schools directly...the positive thing is that we are building capacity at the district level, the districts are rebuilding their own capacity to better serve their schools. But at the same time, there is this perception that we are not providing as much support and leadership as we have in the past. And again, some of that is driven by capacity. (Oregon Department of Education)

Of course states do not rely exclusively on RESAs to support capacity development at the district level. Even states that have less well-established RESAs are finding that they need new collaborators within their own agencies in order to meet the needs of schools and districts. Indiana, for example, is blending funding from several offices and programs to provide a two-year institute academy for principals and teams from underperforming schools.

Building capacity with limited resources: Expectations for state leadership often outweigh the capacity of the SEAs to respond. As noted, SEAs rely on regional service units to provide support for capacity building, but there has been another shift in strategy as well. In most states, capacity building has focused on providing direct training and support to teachers in schools. While districts were usually informed of these efforts, they were not viewed as partners. One of our respondents, for example, indicated that the SEA felt obligated to respond to direct requests for assistance from schools because, in many cases, districts lacked the capacity or knowledge to provide such assistance, or they provided assistance that was not deemed helpful.

Increasingly, however, limited resources and an expanded leadership agenda have prompted SEAs to view districts as partners. This shift has been consistent with the increasing emphasis in NCLB legislation on district as well as school performance. The significance of this shift for tracing the effects of state leadership on improved student learning should not be underestimated. As one state respondent put it:

We began basically to look at the state/local relationship and felt that the emphasis really needs to be placed on districts because districts are ultimately responsible for the performance of their schools and students. In our case, we felt the need to build capacity at the district level to support schools and students. And therefore, we made the shift that we're going to focus on, work with district level leadership.

Even in states where system change has not been prominent in legislative initiatives, it has begun to seep into the working assumptions of SEA leaders who are tasked with responsibility for translating legislation into action. In several SEAs, we found respondents who argued that they saw districts in new light—not as administrative units that disperse funds, but as actors in the larger leadership-for-change system in the state:

The other thing that really influenced our thinking is to develop district-level leadership...you can go into a school and bring about changes, but

those changes will not be sustainable over time if the district did not buy into those changes and support them.

Even states that have long sought to build school-level leadership through professional development have now shifted that work, in some measure, to superintendents and districts. Indiana, for example, which has sponsored a state-level leadership academy for principals since 1985, has begun hosting study councils for superintendents. Shifting the focus of support to districts as opposed to individual schools is a proposed goal of many SEA offices. However, it is a work in progress, not an accomplished fact; each SEA in our sample has continued to do significant work in schools and relies primarily on RESAs or other entities to provide professional development.

While respondents from all but one state shared examples of SEA efforts to develop the leadership capacity of principals, this aspect of state leadership did not emerge in the data as a changing role of state leadership. Hence, our goal in this section of the report is not to suggest that states' efforts to increase school leader capacity is diminishing or absent. Rather, it is to demonstrate an increasing effort of divisions within SEAs to focus more on developing the capacity of LEA leadership so that LEAs can in turn take more of an initiative to develop school leaders.

Blending mandates and capacity building. SEAs also are coping with diminishing resources and increasing demands by trying to integrate their monitoring tasks with tasks of providing technical assistance. Coupling the two represents a significant change from the practices of the past, in which reporting and oversight were pro forma except in cases of egregious problems. In many states, respondents emphasized that, while this shift occurred prior to NCLB, it has been accelerated by post-NCLB changes in reporting requirements. In one state, several respondents emphasized that the SEA is combining the two roles by using the district's plan for improvement as a point of departure. As one person noted:

Basically we engage [the low performing districts] throughout the year, we provide technical assistance, we do some monitoring, and we do some reviews of what they're doing and how they're doing And...our involvement intensifies, it increases over time... . I believe we're experiencing a great deal of success with it, simply because we take it seriously at the state level. We use *their* plan to define our engagement and interaction with that school in the district...they take it seriously and it's a living, breathing document that they're constantly modifying based on what they're doing.

Changing technical assistance roles of SEAs: Targeting districts in distress. The emergence of SEA support of districts is linked to the new concept of districts in distress, arising from the NCLB requirement for school improvement plans for "failing districts." In most states we sampled, extending support to districts represented a new responsibility for SEAs; state accountability systems had traditionally focused on individual schools.

Furthermore, in states that have had a long history of providing technical assistance and support to schools, there has been an emphasis on responsiveness—“we’ll help if you call”—with respect to districts. Since most calls for help came from schools, states needed to develop a new way of working with a very different group of actors.

The recent Education Alliance symposium on the role of SEAs in working with districts concluded that SEA services and capacities now are poorly aligned with district needs, and that SEAs lack a strategic understanding of how best to intervene with and support districts (Education Alliance, 2008, p. 54). Our data, which we collected not long after the symposium, generally confirm this conclusion. Although the shift to serving districts is on people’s minds, actual ability to work with districts remains limited. The lack of a strategic focus for working with districts is complicated in states that provide support primarily through RESAs, over which they often have relatively little control (except in states like Texas and New Jersey, where they are regional offices of the SEA).

The Big Constraint: Delivering More Assistance With Less

SEA respondents explain that in their efforts to provide support for districts they are limited by fiscal constraints. They are working, they say, with fewer resources, smaller staffs, and, therefore, diminished reservoirs of professional knowledge and skill. Given the heavy demands they face, the resource problem is especially pressing. Sample responses from three states emphasize the point:

Funding has not kept up with the complex demands of schools. The federal dollars help, but the huge gap has to be picked up by the state. We really have not kept up.

[The recent budget cut and freeze] had an extraordinarily hard impact on the work of the office. I’ve got gaps in places where I can’t afford to have gaps. ...Because I’ve reached that point where I’ve fallen below the ability to insure that I can get everything done correctly and on time. And...having people leave and having the problems that you have with trying to hire in a state organization, that’s driving back to where I am. You’re never staffed to the level where you need to be staffed.

I think we could do more. I’m hoping that in the future, as funding gets to a better situation we’re able to replace our staff, build our capacities to provide more services to districts. We’re lacking a lot of in-depth knowledge and expertise in certain areas that we’ve just lost over the years. Maybe I’ve got a hundred or so people in my area, and every week, you know, every couple weeks I’ve got another retirement without a replacement. It’s hard, you know, you’re losing depth of knowledge that you no longer can provide.

Resource constraints are leading to innovation. In response, SEAs are reassessing their practices, sometimes introducing new processes for district evaluation and support. North Carolina provides one example. Priorities there

have shifted from providing assistance to schools with weak performance (primarily using retired professionals and teachers on loan) to targeting districts in distress. This shift occurred because of concerns about the success of direct school assistance, and worries about the cost of sustaining that approach. The problem of resources has not been resolved through this change. At the time of our interviews (summer 2008), the North Carolina SEA was working with six districts. However, 60 districts have been identified as in need of improvement.

The need to target districts has raised issues of how to set priorities and how to combine professional development services with assistance in curricular alignment for district leaders. Should SEAs target those districts with schools that are struggling and barely succeeding, or should they target districts with the largest number of schools in need of corrective action? The two measures yield a different set of districts in need, and they imply a different set of support and intervention strategies. The challenge of realigning resources and priorities within SEAs has slowed the process of getting the right help to the right districts and schools.

Collaboration is central. SEA respondents report that intra-agency collaboration has had a strong, positive effect on their ability to address the needs of school districts. Across the states, the rise of intra-agency collaboration amounts to a change in institutional culture. It is a change that state superintendents have sought over the last five years. Other proponents include middle managers (e.g., curriculum directors), who increasingly make their presence known in important decision-making processes (e.g., standards development) where they have been left out in the past. This change in culture has been a challenge; respondents see it, however, as a valuable means of streamlining district support. In Nebraska, the SEA is piloting a process of collaborating across agency units for a continuous improvement model:

We have actually been going in as teams from [the SEA] to work with school districts. So, for instance, the early childhood person would be a part of the team. Our federal programs person might be a part of the team. Our curriculum person might be a part of a team. We often partner with our intermediate service agencies, with leaders from other schools. ... In the past ...they were separate [monitoring] visits. ...Now we're working on, "Let's all do that together." Helping the districts see how they use all of those programs towards a central goal to improve their school. So that is just finishing the pilot year. That is not a requirement at this point that every district does an integrated visit.

The new emphasis on collaboration within certain SEAs indicates a realization that the responsibility for school improvement is shared across offices within departments. Traditional SEA structures, which call for a division of labor across different federal programs, continue to make such collaboration difficult in many states.

Summary of Findings

Evidence from this analysis points to six key findings.

1. The standards and accountability movement has brought about an increase in state monitoring of education. It also has caused SEAs to shift their focus, relatively speaking, away from finances and facilities to factors more directly related to the improvement of teaching and learning.

All states have long-standing accreditation systems to monitor the quality of public education. Within the last two decades, increasing pressure from the national standards movement has been a primary catalyst for changes in oversight and monitoring. Most states have responded with innovations and have revised key components of oversight procedures in response to new standards. New state and federal policies have had a strong impact on SEA staff in all states.

2. SEAs continue to be the agencies primarily responsible for translating state and federal policy into workable requirements for districts and schools.

This requires that SEA staff understand not just the laws, but also the conditions for implementation that exist in schools and districts. The mismatch between school/district abilities, which are affected by size and student demographic characteristics as well as leadership competence, make SEA staff increasingly interested in the technical assistance component of their work.

3. The shift from a focus on funding and facilities to curricular and instructional improvements creates more intense tension in states where there is less experience with state accountability.

Some states we sampled have worked with state standards and assessment programs for a decade or more. Others have been affected by the movement more recently, and they are now grappling with a need for changes in resource allocation as well as changes in climate or identity. Capacity to deliver on new, higher standards is viewed as a problem in all states, but smaller states with smaller SEAs feel harder pressed. Some requirements impose demands that exceed SEA capacities.

4. NCLB appeared to have a limited effect on educational legislative activity (as noted in Chapter 3.1). In contrast, it has had a significant direct effect on SEAs.

SEAs are required to act on many provisions of NCLB legislation that have not been the subject of legislative action at the state level. This is evident in the NCLB requirement that SEAs establish state support systems designed to assist schools and districts that repeatedly fail to meet state-defined Adequate Yearly Progress achievement targets. This support function (as opposed to a focus on accountability and compliance) represents a new dimension of SEA activity in many states.

5. *SEA adaptation to the new accountability and standards environment are layered on to older monitoring obligations.*

The growth of SEAs was stimulated by the surge of categorical federal programs in the 1960s and 70s, which created the emphasis on fiscal and program compliance monitoring. Although SEAs are now expected to monitor outcomes (student achievement) as well as provide technical assistance, they are still obligated to carry out their responsibilities for pre-existing programs.

6. *NCLB requires technical assistance roles that are new for many SEAs.*

Many SEAs are not well equipped to provide the kind of responsive technical assistance and support that is needed by schools and districts. Although many rely on their regional educational service agencies and other partners, the shift in the NCLB legislation to providing direct services to districts is new and demanding.

Implications for Policy and Practice

Seven implications for policy and practice emerged from this section of our study.

1. Introduce legislation to support internal collaboration and organizational change on the part of SEAs. For the most part, SEA staff members and others view the recent change in SEA roles positively. Across the states, respondents explain that the NCLB has helped SEAs better define their role as service agencies. The need to respond to mandates in national and state legislation has prompted SEA staff members from different offices to break out of their silos and share responsibility for educational success. This process of internal collaboration and organizational change is slow in many states, however, and it could be better supported with legislative action that would clarify or simplify existing requirements for program and fiscal monitoring.
2. Increase the capacity of SEA staffs. Capacity-building helps educational leaders at all levels cope with heavy mandates. SEA staff could be more effective if the capacity of their offices were increased. Capacity-building will require both additional staffing in some states, but also additional professional development and training for new roles.
3. Redefine the role of SEAs and their relationships with technical assistance agencies (RESAs) to focus on partnerships with districts. Most SEAs are dependent on RESAs to provide technical assistance and training at the local level. Currently, RESA agencies in most states are quasi-independent; they respond more directly to requests from school and district clients than to under-funded SEAs. In the past, most requests for service have lead to training for

teachers or other school-focused projects. SEAs have limited incentives to offer RESAs to alter practices and services that have provided a steady flow of income over many years.

4. Redefine the responsibilities of the SEAs for managing federal categorical programs in such a way as to allow SEAs to devote more time and energy to helping schools and districts improve teaching and learning.

The dilemma of increasing demands on SEAs and declining resources for SEAs requires further investigation. Testimony from SEA respondents across the 10 states suggests that SEAs do not receive enough funding to meet their responsibilities adequately. Quality of services and outcomes are diminished, and districts are not receiving adequate support. We suggest further investigation aimed at finding ways to strengthen SEA offices and/or their partner organizations. Possibilities include increased funding or the hiring of staff members who will bring new levels of knowledge and skill to their work.

5. School improvement requires shared leadership at the state and district level. When SEA staff members emphasize their role as service providers rather than compliance monitors, they are in a position to improve their relationships with district and school staff. As relationships improve, SEAs are able to have a greater impact on district and school improvements, and to take greater satisfaction in their efforts.
6. Collaboration is an SEA's greatest ally. Working in state government can be a difficult and stressful job, particularly in a period of increasing pressure to expand the scope of employees' responsibilities. However, SEA staff who reported collaborating with other units in their departments expressed greater satisfaction and improvement of initiatives. Those with stronger links to outside agencies are also more optimistic about meeting new demands.
7. University schools and departments of education should develop programs to provide leadership training suitable for SEA staff members. In response to the concern that SEAs are losing knowledge capacity as staff members retire faster than they are being replaced, we suggest that schools of education begin to take stock of this important change.

3.3 District and School Responses to State Leadership

Key Findings

- State policy influences principals, but the extent of the influence depends on the degree to which local administrators see the state as supportive.
- The reaction of district officials to state policies varies based on the political culture of the state and on local context and capacities.
- District leaders view state policies as vehicles for achieving local goals.
- Smaller districts are more likely to regard the SEA as a source of support; medium-sized and larger districts have other sources, often internal to the districts that are more important to them.

Introduction

For state policy to affect student learning, it must first pass through the filter of school and district leadership: local values, beliefs, policies, and behaviors. State effects on student learning will always be indirect, therefore, and difficult to trace. Local processes might enhance those effects or blunt them. We have sought to identify and assess the importance of the relevant local processes. In Part Two we examined district leaders' choices and behaviors as they affect school leadership and student learning. Here we examine the influence of state policies on the leadership behaviors of principals and district staff members. We also explore how districts view the strategies used by state governments to initiate change at the local level. We focus primarily on small (2,500 students or less) and medium-sized (2,501-24,999 students) districts—settings that have been under-examined in investigations of the local effects of state policy.

To examine district-level responses to state policy makers and administrative agencies, we draw on perceptions of power, networking, and loose coupling. The examination shows, not surprisingly, that districts and schools vary considerably in their reactions to state standards and accountability requirements. The smaller districts we sampled tended to see themselves as instruments of state policy implementation and as capable of harnessing state policy to local priorities; several of the medium and larger district portrayed state policy more as a framework and context for the pursuit of local priorities for improvement; others, in particular larger districts with poor student-learning profiles, depicted themselves more as victims of state policies leading to unfair assessments of the quality of education provided by school and district personnel in their jurisdictions. Some differences among in district responses to state policy corresponded to the larger political cultures of their states.

At the outset we note that relatively little empirical research has been done on state-local relationships, particularly in respect to smaller districts. We therefore have framed our research in a set of exploratory questions:

1. How do principals react to state policies, and what impact do their reactions have on their leadership behavior?
2. How do non-urban districts interpret their relationship with state policy makers and agencies?
3. Do differences among states help to account for differences in the way in which district administrators interpret state leadership for improvement and their own responsibilities?

Previous Research

Research on school districts, dormant for some time, is entering a new phase of activity, which has produced important investigations of the district's role in promoting educational improvement.²⁸⁰ Many recent studies have focused on the internal organization and decision-making processes in districts, illuminating the districts' complex struggles to create and sustain improvements in schools.²⁸¹ Others examine ways in which district personnel work with schools, showing the link between decisions and potential student effects.²⁸² Relatively few look at the district's role in interpreting state policy initiatives, in spite of early attention given to the role of the district as a (re)interpreter of state policy.²⁸³

Researchers generally have focused on medium- or large-sized districts that clearly constitute complex organizational settings. Rural school districts, with a few exceptions,²⁸⁴ have not been extensively studied, except in respect to school finance. Inattention to small, rural districts no doubt reflects the fact that most students in the United States attend schools in larger districts, although smaller districts the vast majority of districts across the country.. It is still the case, however, that many small districts, especially in rural states, are very disadvantaged in their capacity to implement state and federal policies.²⁸⁵

Conceptual Lenses for Explaining Relationships

Research to date provides various lenses through which observers have viewed and sought to explain relationships between state-level leadership and leadership in districts and schools. In this analysis we use three of these lenses.

²⁸⁰ Togneri & Anderson (2003); Iatarola & Fruchter (2004); and Marsh (2002).

²⁸¹ Anderson & Rodway (2009); Coburn & Talbert (2006); Firestone & Martinez (2007); and Honig (2003).

²⁸² Stein & Coburn (2007).

²⁸³ Spillane, Reiser, & Reimer (2002); Spillane (1998); and Youngs (2001).

²⁸⁴ Howey (1996); Keedy & Allen (1998).

²⁸⁵ Jimerson (2005).

Hierarchical power: States and systemic coherence. Many observers regard the state as a superordinate actor—constitutionally legitimated as such—and local governments as subordinate.²⁸⁶ State and federal programs assume this view, as do some foundations. In their superordinate role, states provide funding and monitor what the districts do with it.²⁸⁷ While states vary in the degree to which they provide a strong structure and financial foundations for local education, the states’ legitimate authority in many areas of local practice is largely uncontested, and it has increased substantially in the last few decades.²⁸⁸ From this perspective, conflicts in state-local relations usually occur not because the states exceed their legitimate authority but because districts often lack capacity to respond.²⁸⁹ To overcome these difficulties, some observers contend, states should pursue comprehensive, systemic reform in order to attain policy coherence between the levels of government.²⁹⁰

Networks of power and influence. Constitutional allocations of authority are one thing; what local districts actually do may be another. Some observers emphasize the point that districts rarely respond to states simply because of the state’s legitimate position of power. Instead, districts act within the policy system, vying with state actors at all stages of policy making to ensure that policy actions will be acceptable.²⁹¹ And, after state policies have been enacted, they must still be implemented; in matters of implementation, too, local districts and state agencies use personal contacts to negotiate how both parties can best respond.²⁹² Thus, even though states have legitimate authority, it is exercised through informal and formal networks that help to shape local responses to state policy. In some cases, state policy initiatives are not taken seriously by local agencies.²⁹³ Even under current state accountability requirements, some local educators do not view the state as a powerful force for changing basic practices.

Loose coupling. The notion that educational organizations are “loosely coupled” was introduced by Weick (1976) to explain why policies enacted in one part of the education system often have limited impact in other parts. Various studies in the 1970s and 80s described the limits of higher levels of authority in the governance structure for education, and the relatively weak impact of state policy on student outcomes.²⁹⁴ But loose coupling does not mean that *no* influence flows from superordinate entities.²⁹⁵ Even as schools are busy developing their own policies and initiatives, they pay attention to demands from “outside the system” when those demands are consistent with the directions in which their organizations are already moving.²⁹⁶

²⁸⁶ Edwards (1933); Haskew (1970); Lutz (1986).

²⁸⁷ Timar (1994); Wong (1991).

²⁸⁸ Fuhrman (1987); Lutz (1986).

²⁸⁹ Bali (2003).

²⁹⁰ Fuhrman (1994).

²⁹¹ Fuhrman & Elmore (1990); Marshall et al. (1986); Mazzoni (1993).

²⁹² Firestone & Nagle (1995) and Spillane (1998).

²⁹³ Ginsberg & Wimpelberg (1987).

²⁹⁴ Marshall (1988).

²⁹⁵ Gamoran & Dreeben (1986); Swanson & Stevenson (2002).

²⁹⁶ Honig & Hatch (2004b).

State policy culture and district size as moderators. District responses to state policy obviously do not take place in a vacuum. Instead, as noted in Section 3.1, the state government operates within a policy culture that affects how individuals and groups relate to one another when action is suggested or required. We rely on the traditional definition of *political culture* as enduring political attitudes and behaviors associated with groups that live in a defined geographical context.²⁹⁷ In addition, we have known for some time that district size (and poverty) make a difference in how districts cope with demands for reform.²⁹⁸

New Evidence

Method

Evidence addressing the first of our three questions derives from the 2008 principal and teacher surveys and from interviews with district office administrators over the three site visits.

The principal survey contained questions about respondents' attitudes toward the effects of state policy on their school. We standardized four of these items (each measured on a six-point scale that reflected attitudes *toward* the effects of state policies) and added them to form an index of *Positive State Policy Influence*. These questions assessed attitudes about the state's influence on professional learning—e.g., *The state gives schools the freedom and flexibility to do their work*, and *State standards stimulate additional professional learning in our school*. The index achieved an alpha of .76. We analyzed the data in the context of seven additional measures related to principals' assessments of the districts' focus on accountability—through such items, e.g., as *Our district has explicit targets beyond NCLB targets*, and *The district uses student achievement data to determine PD needs and resources*. The district-accountability index achieved an alpha of .87. In addition, we used teachers' descriptions of principals' instructional leadership as the dependent variable in the analysis. (Descriptions of the instructional leadership variables have been presented in previous chapters.) In interpreting the responses, we also turned back to the data on state policy cultures (see Table 3.1.1), probing in depth for evidence of particular legislation that might have a direct connection to local leaders (for example, leadership development initiatives, or major changes in standards for administrator practice).

Evidence addressing research questions 2 and 3 derived from a detailed analysis of all interviews conducted with superintendents and associate superintendents during three site visits in seven small and medium-sized districts. The sampling of the districts was purposive, using a “grounded theory” premise that the task of developing explanations for complex phenomena is best advanced by sequential examinations of several different contexts.²⁹⁹ We therefore began by examining two small districts in two states that exhibited the most distinctive differences in state policy culture. We then

²⁹⁷ Elazar (1970); Lieske (1993).

²⁹⁸ Hannaway & Kimball (1998).

²⁹⁹ Glaser & Strauss (1967).

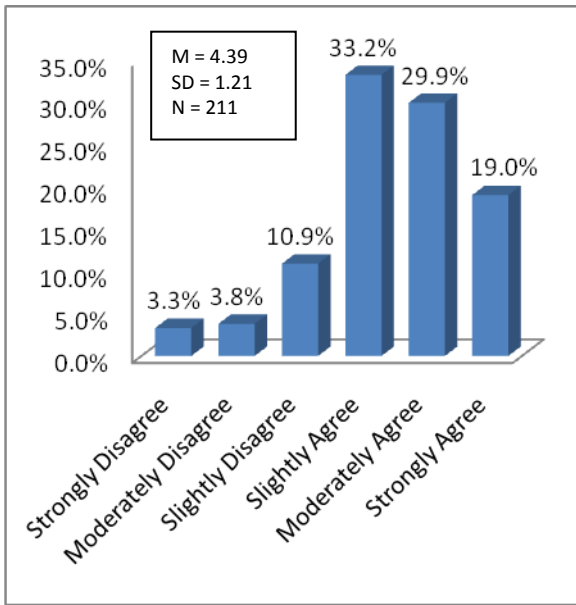
added additional small districts from states that we knew, from our previous analysis (Section 3.1), to be somewhat different. When we turned to medium-sized districts, we deliberately selected those for which we had complete data and which were in states that were not part of our initial examination. In presenting qualitative data here, we have chosen to illustrate our findings with fuller cases from four representative districts, although our analysis is based on all of the more elaborated case studies.

To look for differences between these districts and the larger districts in our sample, we carried out a less detailed analysis of the larger districts, looking only at the superintendent interviews from the third site visit. We chose the third visit because it provided the best lens through which to examine the effects of state standards emerging after the passage of the No Child Left Behind Act, which required some of our states to change their standards and testing procedures.

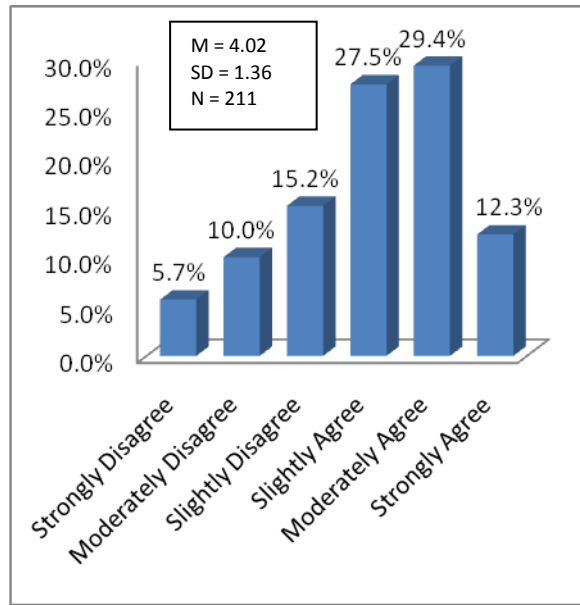
Principal Assessments of State Policy

The principal survey reveals a surprisingly positive assessment of the effects of state policy (see Figure 11). For example, the mean for principals' ratings on the item *State standards stimulate additional professional learning in our school* was 4.39 on a six-point scale, with more than 60% of the respondents giving the item a rating that was somewhat to very positive. Although fewer principals gave the items *State policies help us to accomplish our school's learning objectives* and *The state communicates clearly with our district about educational priorities* the highest rating of "strongly agree," both items suggest that most principals have positive views of the state's role in these areas. Only one of the four items, *The state gives schools the flexibility and freedom to do their work*, garnered a mean response suggesting that most respondents disagree.

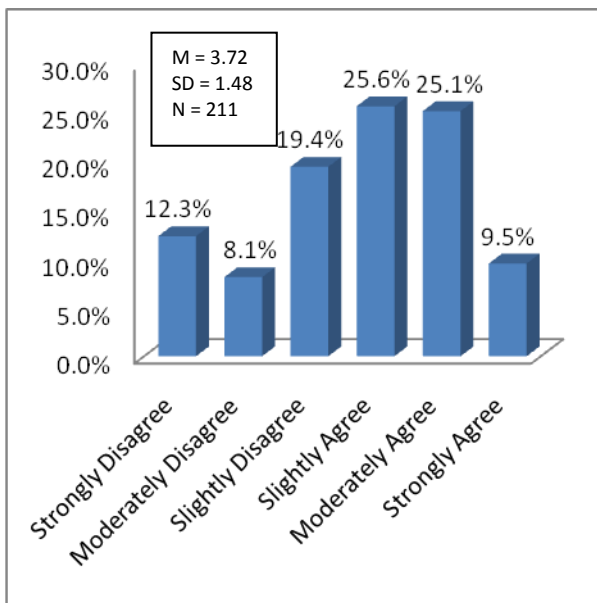
Are these assessments, obtained in 2008, different from those we collected at the beginning of the project, when principals had less experience with the effects of state adaptations to NCLB? The answer is, not surprisingly, that they are different; in all cases, the rankings are lower in 2008. To give two examples: in 2005, principals rated the positive effects of state standards on professional learning with a mean of 4.82; in 2008, they rated the same item at 4.39. In the case of the item measuring state policies as a support for accomplishing our school's learning objectives, the mean rating was 4.51 in 2005, compared with 4.02 in 2008. We compared the means and standard deviations among the states on the standardized Positive State Policy Index for both years. The results (presented in Table 3.3.1 and 3.3.2) show significant differences between the states in both years. Overall, the states that were more positive in 2005 are also more positive in 2008 (Missouri, North Carolina, Nebraska), while two of those in which policies were viewed least favorably by principals (New Mexico and Indiana) show limited change relative to the entire population.



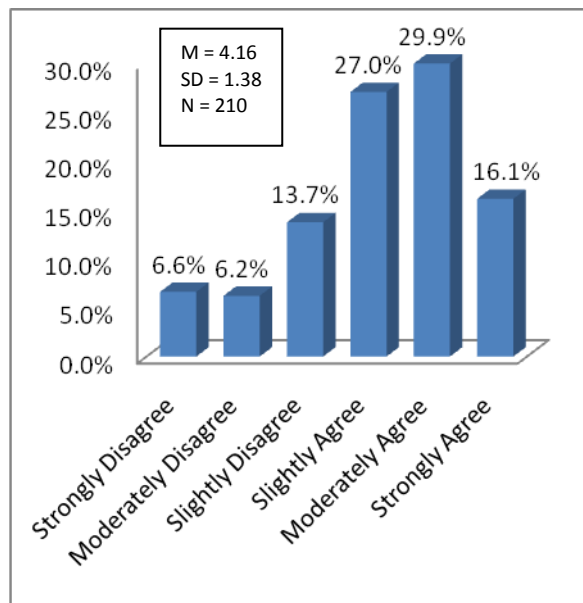
F1. State standards stimulate additional professional learning in our school.



F2. State policies help us accomplish our school's learning objectives.



F3. The state gives schools freedom and flexibility to do their work.



F5. The state communicates clearly with our district about educational policies.

Figure 11: Principal Assessments of State Policy

While it is important not to over-interpret a table that is based on relatively few responses in each state (and a very low response rate in Texas in 2008), we see some volatility in the results. For example, Oregon's scores dropped from among the more

positive to the more negative, while New Jersey's score also dropped from average to below average. It is notable that there were major changes to the tests in both states during our study.

Table 3.3.1
State Scores on the Positive State Policy Index, 2005 and 2008

	N	Mean	Std. Deviation	Std. Error
Indiana 05	39	-.3259	.57908	.09273
Indiana 08	36	-.2014	.70980	.11830
Missouri 05	19	.2861	.58461	.13412
Missouri 08	26	.1945	.80660	.15819
North Carolina 05	29	.2653	.55009	.10215
North Carolina 08	23	.5895	.53837	.11226
Nebraska 05	32	.2664	.60512	.10697
Nebraska 08	31	.1004	.79066	.14201
New Jersey 05	21	.0150	.54704	.11937
New Jersey 08	26	-.4055	.85777	.16822
New Mexico 05	20	-.6111	1.08332	.24224
New Mexico 08	15	-.1918	.91451	.23613
New York 05	32	-.0902	.61023	.10787
New York	18	.0772	.65959	.15547
Oregon 05	27	.1700	.54423	.10474
Oregon 08	24	-.3334	.83796	.17105
Texas 05	38	.0545	.92301	.14973
Texas 08	11	.5559	.77967	.23508
Total 05	257	.0032	.72996	.04553
Total 08	210	.0027	.81992	.05658

Table 3.3.2
ANOVA: Positive State Policy Index, 2005

ZSTATE					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.637	8	2.330	4.906	.000
Within Groups	117.769	248	.475		
Total	136.406	256			

Table 3.3.3
ANOVA: Positive State Policy Index, 2008

ZSTATE					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	21.747	8	2.718	4.601	.000
Within Groups	118.757	201	.591		
Total	140.504	209			

The results are not, of course, directly comparable because the individuals in the 2005 and 2008 samples are different due to principal turnover and the need to replace some schools. Nevertheless, it is reasonable to conclude that significant differences in sample means reflect some collective decrease in the sense that the state is a supportive partner in educational reform, and some shifts within states may be related to changes in state policies. Ironically, this response has occurred concurrent with state efforts to create state systems of support for school improvement as required by NCLB.

We also addressed the question of whether more state initiatives to provide support and training for principals and other administrators might affect assessments of state policy. In order to accomplish this, the state policy interviews were examined, and an additional search of state websites was carried out to look for evidence that policy initiatives related to leadership development, support or changing conditions of employment were translated into persisting practices. The results of this analysis (see Table 3.2.1 in previous section) indicate that Indiana, Missouri, North Carolina and Texas have, over at least 15 years, provided significant initiatives in continuing professional education and support for principals, either through centralized state principal academies or through regional service agencies. Nebraska, New Mexico, New Jersey, New York, and Oregon provide some state-initiated development, but it has been limited or not comprehensive.³⁰⁰ A cursory examination of the principal ratings and the

³⁰⁰ This study did not investigate the state effects of Wallace Foundation funding of leadership projects. New Mexico, New Jersey, and Oregon all received State Action for Educational Leadership grants from the

state initiatives (Table 3.3.4) suggests that state leadership development initiatives (or lack thereof) do not necessarily translate into principal attitudes toward the state.

In addition to examining overall responses to these items, we looked at whether principals' assessments of state policy were associated with their own behavior. To do so we carried out two regression analyses. In the first we looked only at the association of the Positive State Policy Index and teachers' ratings of the principal's instructional leadership, controlling for two key school characteristics (building level, coded as elementary or secondary; and the percentage of students in poverty, or eligible for free and reduced-price lunch). We then added the variable measuring the district's focus on accountability in order to determine the relative importance of state and district policy priorities at the school level. The results of these regressions, presented in Table 3.3.4, reveal two key findings:

- The first regression shows that principals' positive perceptions of state policy are significantly associated with teachers' ratings of principals' instructional leadership behavior. In other words, state policy is felt at the school level.
- The second regression suggests that district policies moderate the state-house-to-school-house connection. This regression shows that the association between state policy and principals' instructional behavior is reduced to insignificant when the additional variable of the districts' own standards and accountability focus is introduced.

Wallace Foundation, and evidence of SAELP activity could be found on state websites. Limited evidence of persistent state-wide activity and no legislative activity were found. In New York, which also received Wallace Foundation grants, the New York City leadership academy is still functioning, and there is a recent state-wide initiative to improve pre-service preparation for school leaders.

TABLE 3.3.4

**Positive State Policy Index and the Principal as Instructional Leader
(N = 201)**

	Predictors	Beta Coefficients	t	Sig.	R²	Adj R²
1	(Constant)	.124	.69			
	Positive State Policy Index	.162	1.69	.008		
	Building Level	-.306	-4.98	.000		
	Poverty	.330	5.30	.000		
	F = 28.671			<.001	.30	.29
2	(Constant)	.119	.179			
	Positive State Policy Index	.075	.075	.252		
	Building Level	-.306	-4.68	.000		
	Poverty	.333	5.30	.000		
	District Accountability Focus	.121	1.89	.060		
	F = 21.464			<.001	.30	.29

Building Level = Elementary or secondary dummy coded
Poverty = Percent free and/or reduced-price lunch

Overall, these findings support the case-based findings of Spillane and others which suggest that that the district’s role in moderating state policy is important. They also suggest an interpretation that will be explored in more detail as we examine our case data—namely, that *unless the district is able to build on state policy to augment the local agenda, the effects of state policies at the school level will be minimal*. In addition, findings here suggest that the link between state policy and principals’ instructional behavior is rather loose, owing to the moderating effects of district policies and practices.

District Assessments of and Reactions to State Policy: An Examination of Cases

While our analysis of principal survey data suggests a loose-linkage explanation for the relationship between state leadership and building-level leadership, it also indicates the need to explore the role of districts as moderators of state-leadership effects. We selected districts of varying size for analysis, but focus on the small and medium sized districts in this section. Small and medium-sized districts tend to have limited resources; they often must rely on partners in order to achieve their improvement goals. Larger districts often have curriculum, testing, and professional development offices that may exceed those available in state agencies. In addition, larger-sized districts are, according to most observers, powerful actors in the education policy system; they sometimes drive state action rather than simply responding to it. Smaller districts may have only a few schools with similar characteristics, and can therefore more easily apply state policy in uniform ways. Larger districts, in contrast, often contain schools with very

disparate populations, and may therefore adopt non-uniform policies to stimulate standards and accountability.³⁰¹

Although our findings are based on the analysis of all of seven small and medium sized districts in our sample, we will illustrate the findings using examples from two smaller districts (with six or fewer schools) in Texas and Missouri, and two medium-sized districts in North Carolina and New Jersey.

Table 3.3.5
Characteristics of a Sample of Smaller and Medium-sized Districts

	School Population	# of Schools	Setting	Demographic Distributions (% minority, % FRP)	District Scores in Language Exam *	District Scores on Math Exam*
Tortuga Shoals TX	1,653	4	Small town	87.13% 88.39%	ES - Similar MS - Below HS - Above	ES - Below MS - Below HS - Below
Middle Region District (MO)	2,349	8	Small suburb of medium-size city	72.9% 62.4%	ES - Below MS - Below HS - Below	ES - Below MS - Below HS - Below
Danhill Regional District (NJ)	16,000	18	Four small towns /surrounding area	12.7% 13.0%	ES - Above MS - Above HS - Similar	ES - Similar MS - Similar HS - Similar
North White Pine Cty (NC)	23,000	36	Large military base located in county	36.2% 41.0%	ES - Below MS - Above HS - Below	ES - Similar MS - Similar HS - Similar

*Comparison of districts scores to state overall scores in 2005.

In our interpretation, we also draw on analyses of additional small, medium, and large districts located in the same states. The states that we highlight in this section have different traditions in terms of educational and political cultures, as defined above:³⁰²

- Texas and North Carolina: Both exhibit “traditional” political cultures characterized by elite influence, strong state efforts to direct schools, and evolving accountability policies that have persisted over a long period of time. North Carolina was among the

³⁰¹ Elmore & Burney (1998).

³⁰² Evidence to support these categorizations has been presented elsewhere; see Louis et al. (2005, 2008).

states with the most positive principal assessments of state policy; Texas was average in 2005, with unreliable data in 2008.

- Missouri and New Jersey: Both states have highly “individualistic” political cultures characterized by many competing interest groups, lobbying, and modest state efforts to create coherence. Missouri is a relative late-comer to state testing, but it has a longer history of general state standards. New Jersey, although a bit earlier to establish state tests, has focused its quality initiatives on a small group of low-performing (“Abbott”) districts. Missouri’s principal ratings were positive in 2005 and 2008, while New Jersey’s ratings went from average (2005) to well below average (2008).

Case Studies: How State Policy Affects Small-District Leadership (all district and persons’ names are pseudonyms)

Tortuga Shoals School District (Texas)

Situated on the south Texas coast, Tortuga Shoals is largely a Hispanic community with a mix of long-time residents and more recent immigrants. Major sources of employment are the service industry for hotels and restaurants (tourism is a burgeoning sector), and shrimping (on the downturn). Tortuga Shoals has clearly delineated higher- and lower- income residential areas, including some subsidized-housing apartments. The school superintendent, Dr. Alba Cruz, was quite familiar with the district when she arrived in July 2003; she had served as a principal in the district before moving to a district-level position elsewhere. Additional district personnel included a new Assistant Superintendent, a business officer, federal/state program officers, and an Instructional Facilitator in the Curriculum and Instruction unit. Three of four principals were new to their positions (in their first or second years).

The superintendent’s top priority has been to improve student learning as assessed by local indicators (course failure and high-school graduation rates) and by results from state testing. Additional priorities included developing vocational programs aligned with local employment opportunities, and addressing social issues related to student retention, such as teen pregnancy and low aspirations for post-secondary education.

Perceptions of policy hierarchy. Dr. Cruz emphasized that more authentic compliance with state and local policies was essential to achieving local improvement priorities. This view was not universally shared among school personnel, who pointed to a track record of good results on the old state test and rankings, where Tortuga Shoals was always in the top 10 percent of the districts in the region.³⁰³ To legitimate these directions for improvement, the superintendent commissioned a curriculum audit by outside consultants, with the expectation that results from this audit would provide direction and legitimacy to a new plan for improving teaching and learning in the district.

³⁰³ The state adopted a more rigorous curriculum and testing program in 2001.

In the past, the district had taken a decentralized approach to policy implementation. Program units at the district level managed their policy portfolios relatively independently, and responsibility for implementation was delegated to schools. The orientation to state policy was characterized by district compliance with bureaucratic requirements and trust in school personnel to ensure positive results. As student test results began to slip under the new state requirements and more stringent NCLB criteria, the percentage of students not meeting minimum standards increased (but performance also slipped at other schools in the region: Tortuga Shoals schools remained relatively high performing). The new superintendent began to challenge the local culture of formal compliance and decentralization. Dr. Cruz and her assistant saw a need for a more authentic and coherent approach to state policy expectations for curriculum and teaching:

My philosophy is, you teach the text. With a state curriculum, you teach it with the intent of how it was supposed to be taught, which is the depth and complexity of each objective, and everything else is going to fall into place. And what I'm saying is: "No. You teach the [curriculum] the way you're supposed to, and [tests] will be taken care of."

The district capacity for reform was affected by state funding policies, which redistribute tax revenues from high property-tax districts like Tortuga Shoals (with its strong tourist industry) to low-wealth districts. While local officials decried the loss of revenue, the district received significant supplementary funding because of the high poverty levels among its student population. State funding cuts resulted, however, in the loss of one of two Instructional Facilitator positions. The district, by necessity, had to rely on principals' instructional leadership and on expertise from the regional education center or independent consultants to support school- and district-wide improvement initiatives.

Networks. District and school personnel reported little direct contact with the Texas state education department, but relied on the state-supported regional education service center (RESA) as a key source of information about state policies and as a provider of professional development services. The RESA's professional development offerings focused largely on state initiatives (such as improving Gifted and Talented programs and classroom technology use) that were not always linked to local priorities. Education service center staff also provided technical support for analysis of performance data.

[Leaders in the state education department] are not influential. They give you a menu, and say, here, this is what you need to do. The region is very different. We have a great regional service center. Always looking for ways to improve the region, all schools in the region....They have great staff development.... The majority of the time they're trying to do what's good for kids and for the school districts.

Dr. Cruz and the Assistant Superintendent valued and participated regularly in district- administrator meetings organized by the education service center, and she reported that these were important to her:

Even at the superintendent level, when I have my superintendency meetings at the region, they're very helpful. I mean, they literally come with data where they've already analyzed a lot of the data within our school district. They're better equipped.... They have more personnel to be able to do a lot of the studies for us. So that's real helpful.

Neither Dr. Cruz nor the Assistant Superintendent identified other organized networks of professional influence and support, but they talked about communication with close colleagues from neighboring districts and about attending annual meetings of state professional associations. The district was not involved in university partnerships focused on local improvement efforts.

The year prior to Dr. Cruz's appointment, the district entered into a multi-year contract with a commercial mathematics program developer, but it terminated the contract for materials and professional development after several years, at the point of renewal, because of the cost, concerns among the elementary schools regarding the program's effectiveness, and the program's weak program fit with a state mathematics textbook adoption. School principals independently continued to use external consultants related to their own priorities for improvement. An elementary principal, for example, arranged for in-service training inputs on reading strategies for her teachers, while the junior high principal recruited external in-service expertise to support her vision for more constructivist forms of pedagogy.

The superintendent was also responsive to input from local community groups, such as the Tortuga Shoals Education Foundation. The Foundation was created by stakeholders associated with the tourism industry; it was a key source motivating the superintendent's interest in expanding high school vocational programs.

Dr. Cruz and her district colleagues did not portray themselves as influential participants in the state policy-making process. Rather, they emphasized their responsibility for ensuring effective implementation of state and federal policy, in contrast to the *laissez-faire* approach to implementation during the prior administration.

Loose coupling. "Loosely coupled" certainly describes the district prior to Dr. Cruz's arrival. A district-improvement plan existed on paper, but it was not an operative document guiding district improvement efforts. While there were programmatic initiatives underway (the elementary mathematics program, a federally-sponsored program intended to motivate high school students to pursue post-secondary studies, and a government-funded after-school program to provide positive alternatives for teen social behavior), there was no overall consensus on needs, goals, and a strategy for improvement. The district's initial response to the new state curriculum and tests, and to the decline in student test-score results, was mainly to call for principals to organize school-based curriculum-writing projects, which were carried out with little district guidance or input.

During her first year as superintendent, Dr. Cruz identified directions for improvement in student learning. She was disturbed and puzzled by the fact that students' course-failure rates (which principals were required to report every six weeks) were unacceptably high (e.g., 29% at the high school level) despite the history of formally satisfactory student results on state tests and school accountability ratings:

There were too many students failing, and I didn't know whether it was because of apathy on their part, or because . . . the previous levels were not teaching the prerequisites that needed to be taught for the following grade level. So that's what sparked the whole thing up, thinking, wait a minute, we do great things individually, but yet, why do we have the failure rate that we have? There's got to be a reason for that. So I felt that a good, thorough investigation would give me some answers.

The discrepancy between local and state assessments of student learning fueled Dr. Cruz's growing belief that the state test-score results were an inadequate indicator of the quality of student learning. She strongly suspected that teachers were not challenging students to the cognitive level of the new curriculum, and that too much effort was being devoted to test preparation. Dr. Cruz took the position that a major obstacle to further improvement in student performance was a weakness in vertical curriculum coordination and coherence, in K-12 schools across the district:

We have four great principals, and I think that's a real big asset to this school district. They're all instructionally focused, and they're hard workers, they're dedicated. However, I was not convinced that we were implementing curriculum pre-K to 12. Each school is doing great things within their school, but I didn't see that continuity from pre-K all the way through the 12th grade.

Dr. Cruz and her assistant realized that without additional evidence, district and school personnel would be unlikely to support these views. Accordingly, she asked the school board to fund a curriculum audit lead by well-regarded external experts in this process.

Dr. Cruz also took steps in her first year to begin to break down the organizational culture of autonomous schools and autonomous units, noting: "When I walked into this district again, it was very fragmented. So since day one I have been working on building a culture of togetherness." Her emphasis on teamwork across schools and organizational units was a key element of her strategic agenda to develop greater consensus and coordination focused on directions for improvement and alignment with state and local goals.

Summary. Dr. Cruz's approach to change and improvement in student performance across the district embraced state policy expectations for curriculum, teaching, and learning. Dr. Cruz believed the path to improvement in student learning would require strengthening compliance with new state-level expectations, better vertical

alignment of curriculum across the schools, and more effective collaboration within the district. She did not, however, go beyond the state standards or collect additional data. She focused on leveraging understanding and compliance with state initiatives and on using the state's priorities to stimulate change at the school level. Both Cruz and others on her team were actively collecting and looking at state and local performance indicators, but they lacked the capacity to gather or use information that would help them interpret those indicators, which limited their ability to explain performance problems (other than by reference to curriculum alignment).

Middle Region School District (Missouri)

Middle Region is a small suburban district located in a major metropolitan area. Over the last 15 years the demographic character and academic rigor of the district has changed. What had been a largely white and affluent population became predominantly non-white, with more than half of the students in the district receiving free and reduced-price lunches. Along with changing demographics of the student population, academic performance within the district gradually worsened. Contributing factors, as explained by district staff, were teachers working in isolation and low expectations for the newer students. The school board had growing concerns about the need for change throughout the district.

A new superintendent, Dr. Ken Leslie, was hired in 2001. His task was to turn the district around. Dr. Leslie's first priority was to change the prevailing culture of low expectations among educators in the district; his second was to improve student achievement through increased rigor, alignment of state standards to classroom practices, and implementation of mathematics standards higher than those set by the state. The district's strategy for achieving these priorities involved replacing principals, creating a more rigorous curriculum aligned with state standards, and providing external support to schools to assess progress. The underlying assumption of Middle Region District is that local accountability and standards are critical to ensure academic gains among students, meeting or exceeding state standards.

Perceptions of policy hierarchy. The relationship between Middle Region District and the state changed dramatically in recent years. Prior to Superintendent Leslie's arrival, state authority was held in low regard by Middle Region educators. They ignored state standards and curriculum or implemented them poorly. They apparently thought it more important to ensure that students would feel validated and supported than that they would perform well academically, and this view effectively displaced high expectations for achievement in many classrooms. With the current superintendent, this changed.

The district is now more attuned to state policies and guidelines, and it implements them appropriately, according to teachers and administrators. The superintendent explains that the turnaround began with a sense of urgency:

We looked at all the data, particularly at the high school, and we looked at it at the middle and elementary schools as well. My challenge to the staff was that we don't have time to make any major mid-course adjustments.

We've got to come up with a game plan and we've got to be willing to stick with that game plan through the year. Otherwise, we are not going to make a sufficient... difference to make sure that we are fully accredited.... So we were aggressive. Our plan generally was that we didn't want any band-aids. We wanted to make sure that anything that we worked on would be foundation building as well as show gains the first year we did it.

Superintendent Leslie focuses clearly on being in step with state directives. The district actively seeks and expands upon state direction for curriculum, standards, and assessment planning to establish a baseline for professional practice and student achievement. It also actively seeks support from the state.

In this small district, the superintendent's vision determines how others see the state, because there are few layers between him and the teachers. The district office frames local goals for student achievement in terms of student performance relative to national as well as to state curriculum and learning standards. District goals for elementary students emphasize grade-level readiness; in the middle and high school grades, goals emphasize increasing rigor in mathematics. Overall, goals and initiatives are targeted to student learning gaps by income level and race, challenges unique to grade levels, and transitions into higher grades. The district utilizes data-driven decision making to determine priorities for curriculum and standards alignment.

The district went beyond the state's requirements. It achieved policy coherence by aligning state standards with district initiatives. State standards were recently revised in Missouri to establish grade-level expectations. Effectively, the district reformed its curriculum and assessment program to reflect policy changes of this sort, while keeping to the goal of setting standards that are higher. As Dr. Leslie noted:

Yeah, I'm satisfied that [state] assessment is stringent. I worried out loud a little bit that when they re-did the performance [measurement] that we were moving the standard down a little bit, because I would rather have a standard that is tough and just a little bit out of reach without great effort than to make it easier for me to get there as a superintendent. I know I'm kind of a renegade among my colleagues, but they put up with me, I guess.

The new emphasis on increased rigor in mathematics was so strong that the district shifted toward pre-algebra instruction in the elementary grades to better prepare students for eighth-grade algebra.

Achieving transparency in district goals has been accompanied by efforts to increase capacity for district reform. Through the leadership of the superintendent, the district replaced most principals in the district, with the intention of establishing a new culture of leadership focused on academic rigor and students' capacity to learn. The superintendent explains that students need principals who have high expectations and

track records of having turned schools around, and that they need teachers who will emphasize learning, not merely trying to make students feel better.

Networks. Because Dr. Leslie formerly held an influential role with the state, his expanded set of relationships includes people in the state department of education, district superintendents, and other educators. Given his former role and reputation, he is able to influence state forums and continues to engage in policy discussions with state actors. He is vocal about his concerns regarding limitations of state policy, and he pushes for the inclusion of academic principles that support the vision and goals of Middle Region District. The superintendent also communicates with other district superintendents for fresh ideas for growth. However, his background appears to be the most important source of his influence on district priorities, because it enables him to maintain close ties with and access to state department staff.

Although external networks are an important factor in the district, the superintendent places a greater emphasis on internal district networks. One important network is the one he maintains with school principals; he sees principals as leaders of a school culture that supports district goals and state policies. He has, therefore, established bi-weekly principal meetings, and requires principals to attend school board meetings:

Administrators are required to come to board meetings so that they can understand the interactions and they can feel and see what the board members are thinking, doing and saying. That is something that I learned in my years at the state. The more you get a sense of where the board is coming from ... the easier it is . . . to make the kind of adjustments [that we need].... When we've got a lot of people in the room, looking, watching, there is a greater understanding.... Then they kind of have a feel for why I'm saying we have to adjust here.

The emphasis on network interactions within and outside the district is not based on a goal of state policy coherence. Rather, it is based on the superintendent's thorough understanding of the strengths and weaknesses of state curriculum standards, and his efforts to move Middle Region District forward in improving its local priorities through a collaborative and cohesive approach, thus moving the district ahead of others in the area.

Loose coupling. The previous superintendent's administration emphasized loose coupling with state policy initiatives, which were viewed as marginally relevant to the district's changing demographic profile. The current superintendent helped to develop a common agenda for moving the district forward, including increasing expectations for student success, academic rigor, reporting, professional development, and alignment to state and national standards and assessment programs. To address his concerns about weak attention to academic learning in the early grades, the district revamped the curriculum and developed new report cards linked to state standards that addressed ambiguity in reporting student progress. This change has decreased the former practice of giving passing grades to students who did not earn the grade, and has contributed to an increase in proficiency attainment.

The district has also established more rigorous expectations for teachers and principals regarding their pedagogy and the expectations they hold for students, and developed (with external consultation) has developed a tool to help teachers align curriculum with the new grade-level expectations as well as state and national standards, assessments, suggested teaching strategies, and resources. The superintendent explained the importance of these changes:

We have got good teachers that are cutting edge and are energetic and you don't worry about them too much. We have good teachers who need to make some adjustments in their strategies and we try to work on those.... We try to provide opportunities for them to learn. I think leadership has to be strong, it has to be focused and it has to be driven by vision, but the people who make it happen are the teachers in the classroom. So a good deal of energy and resources need to be focused on helping teachers, good teachers, become better.

Summary. In this case (as in Tortuga Shoals), the coupling of district and state initiatives largely depended on district leadership. Both Cruz and Leslie identified the need to change local culture and to achieve more effective alignment with state standards for classroom practice. However, Leslie, located in an individualistic state-policy context, felt free to establish local standards that exceeded state standards, while Cruz, in a more traditional “top down” state, still operated with a compliance orientation. Most notably, the commitment and actions of Superintendent Leslie to align district efforts to state curriculum standards determined how state policies were “felt” within schools. His efforts encouraged the district and schools to examine local data rather than relying only on what the state provided. As the district coupled its efforts more closely with state and national standards, student learning improved and school board support for the district increased.

Case Studies: How State Policy Affects Leadership in Medium-Sized Districts (all district and person's names are pseudonyms)

Danhill Regional School District (New Jersey)

Danhill is located in a quiet corner of New Jersey. Like much of the state, it is undergoing rapid development. Until recently it was known as a farming community, with some workers employed in the tourism industry. It has since become an attractive area for retirees, in part because it is proximate to larger cities. Although the district is medium-sized in student population, it is quite spread out, and its schools have by and large retained their small-town identity.

Danhill's economy is increasingly dependent on “outsiders.” The superintendent estimates that about 50% of Danhill's young families today are newcomers. Because the district covers a relatively large area, there is considerable diversity among the schools. Some elementary schools, for example, are affluent and almost exclusively white, while others have higher levels of poverty and minority enrollment.

Overall, Danhill students perform well on state assessments, but several of the schools have not met AYP targets for several years running. Nevertheless, the district has a strong reputation within the state, and it continues to attract support from local residents—in part because it has worked to maintain the viability of small, decentralized schools that are responsive to the communities they serve. Contributing to the small-town feel of the schools is a pattern of stability among professional educators and administrators. Most of them grew up in Danhill; almost all educators working in the district office have been in the district for 25 years or more.

Perceptions of policy hierarchy. In Danhill, administrators clearly accept the state's role in setting curriculum standards and accountability. At the same time, a sense that the state is an adversary runs through district conversations about policy and change. As one associate superintendent put it, "So much of what we see on a daily basis is so punitive. I don't think that is going to change.... I think that the nature of government is just what we have in New Jersey." This educator and others see the state as a remote entity in which the realities of student learning are not understood:

I don't think that some of the people that make the rules and regulations really truly understand what's going on. You know the whole No Child Left Behind workbook that they provided, and then the end number that has caused so many of our schools to be considered failing schools when indeed they're not, that's one example...

This associate superintendent noted, however, that the issue is not with No Child Left Behind per se, but with New Jersey's interpretation of the law. Danhill has a number of small elementary schools (under 400 students) in which a few seriously underperforming students (who might be, for example, special-needs and second-language learners and from poor families) could make a big difference. All top administrators expressed concern about New Jersey's policies on subgroup achievement scores. As one administrator noted about an affected school:

Truthfully I don't know what more they can do. We've added technology, we've added professional development. More parental involvement. The teachers are involved in the process. When you have a handful of students who are in subgroups who do not pass the test you are immediately considered a failing school. I think they've done everything they possibly can to improve their instruction to help children do the best they can.

Another concern had to do with constantly changing expectations related to student testing, coupled with relatively weak communication. Administrators and teachers were concerned, for example, because they did not know when the state's high school proficiency test would begin testing for content taught in Algebra II, and what would happen to students who didn't pass the test. As an associate superintendent noted, "They are moving ... and they are not giving us enough answers. Maybe in their own wisdom they know what they are doing, but ... we haven't been able to get an answer."

On the other hand, the district has very good relations with the regional office of the state department, which district officials regard as very responsive and helpful.

District administrators distinguish between state policy and implementation, on the one hand, and, on the other, the overall policy goals of accountability, which they see as a stimulus to innovation and improvement:

I think sometimes the restrictions are a bit misguided...but ...it's caused us to realign and rethink how we provide remediation. ... We've gone away from even thinking of it as remediation and think of it as extra help and preparation. We've devised ways to use some of our money for ... in-class support models...meeting the needs of those students who we identify and recognize as kids that need more. It's caused us to obviously communicate more with parents....

Many of the curricular innovations being implemented in the district were chosen specifically because they appear to work well for children who may need extra help and stimulation.

The issue of greatest concern to the district, however, is not communication or the general goal of accountability; it is the state's funding equalization policies. District educators believe these policies have left them in difficult circumstances:

If you are not an urban district in the State of New Jersey, you are not going to be getting a lot of money. Those urban districts are taking 80% of the [state allocation for] district funding. There is eight billion dollars spent in New Jersey public education—80% of [the] eight billion dollars goes to 29 school districts.

Networks. Danhill sees itself as a willing partner with other districts (the administrator with responsibility for technology talked about the networking that goes on with others in similar positions), with regional institutions of higher education, and with the Educational Testing Service, located in Princeton, New Jersey. Students are encouraged to take courses at a local community college. More importantly, although Danhill is a mid-sized district, it has significant capacities that many smaller districts lack. Thus, when Danhill administrators think about networks, they are more likely to consider how they provide assistance and resources to others than about their role as a recipient of assistance:

... one of the advantages of being big is that companies pay attention and give us an opportunity [to do workshops using their materials]. And what we've done, even with partner districts, is actually we invite our peripheral districts in.... In other words, we include them as if they are another one of our elementary schools.

In contrast, internal networking is very important. The superintendents meet with all of the district's administrators at least once every two weeks, and they have many informal meetings on-site as well. Internal networking, including informal meetings with subcommittees of the school board, is what keeps new ideas circulating and under discussion before any decision is taken. As one administrator noted, the strategy is to create consensus through discussion: "It's really kind of a top down, but the top isn't one person; the top is . . . an approach by a group of administrators." In addition, the superintendent focuses on networking within the communities served, making sure that he has an eye on what might create support for innovation and new policies:

I am really a firm believer in reaching out into the community. The parent input and the community input is so necessary. . . . I want the brutal truth from them. You need to hear the good and the bad as well as what are we doing right and what are we doing wrong? How can we help? . . . We've had a lot of interesting conversations with the business sector of the community. We've connected the business sector with education.

In general, administrators in the district appeared to be disconnected from state policy making and initiatives. One administrator noted, for example, that the New Jersey teachers' association has a great deal of influence over policy, and that the administrators' association has somewhat less. No one, however, talked about working through associations or other groups to change the aspects of state policy that seemed most onerous.

Loose coupling. The district's response to financial and accountability pressures, and weak support from the state, has been to become more entrepreneurial. In the past few years, the district has had to cut several administrative positions and re-organized job responsibilities. On the whole, those who are retained in the district office feel that it is working reasonably well, noting that "[The superintendent] is very good at reorganization and sometimes that means doing more with less people. . . . fortunately the structure is very good. . . ."

Perhaps more distinctive is the development of new revenue streams to compensate for the state's emphasis on finance equalization for poor districts. A few years ago, the superintendent noted that the district was paying a great deal of money to rent the building in which the district office was located. He suggested buying it, and turning the unused space into services for the community:

Everything that we do is geared from a business model. . . . , so we're doing unique things with the [building] in terms of trying to generate revenue. . . . We now generate \$40,000 a month revenue and probably two to three cents to the tax payer every year because of its worth and we now have our offices and don't pay rent so the give back there is bigger than that. So that was a business plan.

The services provided by the district include a cafeteria that is open to the public, a copy and publications center, technology support, and space rental.

In its approach to innovation, the district focuses on supporting continual improvement rather than visible reforms—reforms that the state promotes or those that are popular in professional circles. In addition to the plan for generating revenue, the district increased its capacity for promoting innovation and professional development among teachers, while reducing administrative costs, by implementing a supervisor position at the building level. Because supervisors are classified as administrators, they can serve as instructional coaches and evaluators.

In all cases, the district prided itself on going beyond what state policy requires. One example is teacher induction, which involved professional development services tailored to individuals (based on initial assessments), in addition to the state's mandate for a mentor. The idea for the program came from a visit that a Danhill administrator made to a district in New York. Local efforts to create a more rigorous high school curriculum were stimulated by internal analysis and by resources acquired from a National Science Foundation project that involved two universities. Administrators have made it clear that their efforts predated the state's efforts to increase graduation requirements.

Summary. Danhill emphasizes adapting external resources (curriculum, software, etc.) to local needs, and creating local support for district-improvement actions. For the most part, this approach has been successful. Administrators and teachers have paid little attention to the state's mandates, with the exception of meeting testing requirements. While district officials complain that New Jersey's interpretation of the No Child Left Behind Act makes little sense in the small schools in their district—unfairly penalizing schools with a few students who are struggling—they have not done much by way of response. Instead, they hew to the course that has been their consistent strategy for more than a decade: to develop support and increase the flow of revenue within the district, and to make gradual changes that can be adapted to the various constituencies served by the schools. While the state is a player in Danhill's arena, it is a relatively unimportant influence compared to the influence of local goals and efforts.

North White Pine County (North Carolina)

North White Pine County School System has 36 schools and approximately 23,000 students. The district experiences high student and teacher mobility because it is located near a military base. District-level leadership, on the other hand, has been stable compared to other districts in the state. Superintendent Samuelson served for 16 years in the district, and the superintendent before him served for 19 years. The district staff has therefore been able to work through issues and challenges in a systematic way, especially with the board of education and county commissioners. During the last year of our study, Samuelson, and three other district level leaders, retired, and a new superintendent, Sheila Wauters, took over. The transition was smooth because all of the new district-level administrators were brought up through the ranks in the North White Pine County system and were well known and liked. One large challenge for the district has been meeting the

Highly Qualified Teacher rule. Due to state teacher shortages, high rates of family mobility, and a growing community, North White Pine regularly hires between 300 and 350 new teachers every year.

Perceptions of policy hierarchy. At the district level, policies and initiatives have always been piloted by schools on a focused and invitational basis before they have been adopted system-wide. The motto has been to start new initiatives and reforms slowly before fast-tracking them into the system. Superintendent Samuelson said: “Rather than racing in and then you have to back up and race out again, we have tried to fine-tune and refine what we are working on so that as someone sees the value of that and buys into it, it is already a product that fits us and fits our needs.”

Because the district has preferred to take things slowly, it has had problems with state-mandated policies that must be implemented all at once. District officials described the state as largely driven by the preferences of the governor. For example, during Superintendent Samuelson’s tenure, the governor made early pre-school education a top priority and mandated that all districts either create their own early pre-school programs or align themselves with community agencies providing those services in the state. The governor formed a political partnership with community agencies like Head Start, but offered no additional resources.

The reaction of the district was mixed. The superintendent said, “Certainly we all understand the value of kids coming to school ready to learn and having skill sets that they can do that. But that has been forced on us without any additional facilities, without additional teachers.” In addition to the pre-school initiative, the governor mandated a program called “More at Four” and instituted a rule that class sizes be reduced. However, neither the governor nor the state provided any additional space or dollars for hiring new teachers. Superintendent Samuelson pointed to the consequence of within-state competition for the scarce resource of teachers, for funds, and for additional space.

District administrators note that their legislative delegates at the state level listen to them, but that the governor is able to create other alliances that support his priorities. For example, all of the school districts wanted to maintain local control and site-based decision making on several issues, (control over the school calendar) but the governor and legislature responded to the tourist industry’s preference for starting the school year after Labor Day. In another example, Superintendent Samuelson fought with limited success against state timelines for meeting NCLB teacher-qualification requirements.

Superintendent Wauters reported that while the district retained control over aspects of school operations, the state has mandated many new programs and curricular initiatives. For example, the 2006 “21st Century Skills” initiative sought to ensure that students would be globally competitive, that teachers would be up-to-date technologically, and that school and district leadership would foster instructional innovations. Although district administrators supported this initiative, they pointed out that the state had not provided an appropriate level of resources or guidance to implement it. The superintendent told her staff, “If this is the direction that the state is going to

pursue, then ...we are supposed to align ourselves with what the state has put out. So I think we need to have this conversation, which we did.”

Superintendent Wauters said that even though the state has been influential, people at the State Department and the Department of Public Instruction were “floundering” because they were unable to help districts to move forward with the new focus. In response, Wauters used the “opportunity” provided by the state framework to stretch her staff, asking teachers to consider questions like: “When the state comes out and says we are going to prepare students to be globally competitive, what does that mean? What does that mean to you in the classroom and what does that mean to our school system in terms of what we need to be doing?” She partnered with community members and engaged with university and community college partners in the process. She said, “We’ve pulled all those people in and said, 'Look, this is what the state is telling us. We know we don’t do it in isolation. How do we do it together?’”

The assistant superintendent reported that the district tries to connect with the state department of education, but because of cuts at the state level, capacity has been an issue. She stated:

We don’t get as much from the state DPI as we would like, but the ones who are there are as close as the phone, so I don’t want to put anybody down. I know that people in the Division of Personnel and Licensure know us personally, we call them, they are there or they retrieve the call from wherever they are and give us a call. We just wish they had more numbers.

Networks. Networking with community groups and partnering with other county personnel has been a necessity in North White Pine County because the County has been classified as a “low-wealth” district, because the central office has been understaffed, and because there have been teacher shortages. However, the stability of district-level leadership has helped the district make vital connections with community groups and other county staff. Superintendent Samuelson often worked with the county manager, even though most of their discussions had to be by telephone because of travel and budget restrictions. During Samuelson’s tenure, the district networked and partnered often with local universities, and community college faculty members and staff, to provide teacher training. For example, the district partnered with mathematics and science professors to create a program to improve teachers’ mathematics knowledge and skills. Getting new teachers up to speed on the state’s accountability policies has been an on-going challenge. The district does most of its own professional development; it has tried to provide mentors to all teachers, and to provide pre-service and in-service teacher training, but it has had to scramble to partner with the local university and community colleges to make sure that teaching assistants got certified.

Superintendent Wauters has networked even more than the previous superintendent. For example, she became involved with the Southern Association of Colleges and Schools and served as the state specialist in the area of district accreditation. North White Pine County was the first district in the state to go through the accreditation

process. Wauters also has served on various state-level boards and on university and community college boards and committees, and has been engaged with the economic development group in the community.

Loose coupling. Even though the district struggles with high mobility rates, its students have performed well academically. The district's scores are higher than regional and state averages. Several district schools attained 90% or higher proficiency rates on state tests; all were above 80%. Still, the district has faced a challenge in efforts to meet federal conditions for continued academic growth especially because the district has close to 2,800 students who have been classified as Exceptional Children (EC).

Both the former and current superintendent see their district as active participants in state-wide conversations about educational policy. Rather than detaching from or merely arguing against state accountability policies, Superintendent Wauters met with state leaders to talk about the importance of having state assessments and accountability measures aligned with the new state focus. She reported that many local districts have banded together to lobby at the state level to align these systems, and are developing grassroots approaches to fostering more conversation. She explained:

So we've started having that conversation with the state. So now they are in the process of looking at 27 recommendations from the superintendents and schools about things that they need to begin. Those are just the beginning steps to what they need to do to adapt the accountability model in the State of North Carolina...So we've shared that voice. What we've done locally is go out. I have gone out and talked with school leaders, teachers, community, and I have said that multiple-choice testing, what you all need to understand is that is only one form of assessment. It is the one form of assessment that the state and federal government currently tell us we must use.

Because of these efforts, the state has begun to align its 21st Century Skills focus with assessment and accountability measures. The state has also been in the process of implementing a similarly aligned teacher-evaluation instrument.

Summary. North White Pine County district has experienced problems meeting some NCLB mandates because a high percentage of its students and teachers come from military families, who are highly mobile. This is the district's major problem, about which, it reports, the state does little to help. Because of that, the district partners with local community colleges and universities as well as other community groups to meet state and federal requirements. North White Pines County staff members report that they spend a great deal of time working with their schools and their communities to make sense out of and shape various mandates to fit their local settings. The district has tried to hold to its own philosophy by piloting new initiatives and refining them before implementing them system-wide. Like the other medium-sized district in our sample (Danhill), North White Pine County tried to influence local public opinion about state

policy, although the superintendents (past and current) played a more active role as actors in the state policy context.

Summary of Findings from the District Leadership Cases

In Table 3.3.6 at the conclusion of this section we present findings from the four districts, using the framework that we set out earlier. In summarizing our findings, we draw on these four districts and on our analysis of other districts not described here in detail.

Debates in the press surrounding the standards and accountability movement often emphasize the prescriptive nature of emerging state and federal legislation. By implication, there is a sense that local districts, as well as principals and teachers, are put in a straightjacket as they struggle to comply with policies that do not always make sense in their local context. Our analysis casts light on this issue by examining the responses of district staff members in four small and medium-sized districts. Size matters here, we assumed, because smaller districts, given their limited resources, may be less able to move resources around to meet new requirements. State policy environments are also important, because states have varied widely in how quickly and in what ways they have reacted to public demands for increased standards.

Hierarchical power: Do states have a systemic effect? Overall, our evidence suggests that state standards and accountability policies, including state-level interpretations of NCLB requirements, have a modest impact on local behavior and planning for the improvement of teaching and learning. This does not mean that schools or districts generally ignore state policies; it means that, rather than serving as fixed templates, state policies and requirements are incorporated into what the district administrators want to do. Some districts complain about a lack of resources and support for implementation, but in general they agree with the intent of state policies.

While districts vary there is variation in how they react to state standards and accountability requirements, they rarely describe their situation in ways that would suggest they feel besieged or victimized by the standards movement, even when they disagree with specific policies. Three of the four districts we analyzed in detail have high poverty/high minority populations, yet they all welcomed the standards movement as helping them to define and achieve important (local) education goals. They described their relationship with their states in terms that must be categorized as accepting. They acknowledged the legitimacy of state policy (even if they dislike the notion of federal mandates and bemoan inadequate state funding), and generally find that they are able to use policy to enlarge their own influence over the improvement of education in their settings.

None of the districts described state agencies as a significant source of support, although three states (Texas, Missouri, and New Jersey) have well-funded regional service agencies whose role is to support professional development and to enhance the capacity of district offices. Loose coupling was evident in the actions all four districts took to develop their agendas for improvement, to which state standards and

accountability agendas could be linked. Two districts (Tortuga Shoals and North White Pine County) described the state's role as defining what they were trying to do, but even in those cases district leaders saw themselves as going beyond superficial compliance. None, however, reported significant professional guidance or support from state education departments or regional service units for the implementation of programs targeted to locally defined needs and goals, even within the scope of state priorities and initiatives.

There is little evidence to support the assumption that state policies bypass the district and have a direct impact on the behavior of principals. Although principals' assessments of positive state influences predict their instructional leadership behavior, state effects are overwhelmed by principals' perceptions of the role of local standards and policies.

Networks of local leadership influence. Senior district staff members in small and medium-sized districts have limited political networks, with the exception of one individual in our sample who formerly held a key state position. However, both he and the superintendent in North White Pine County saw themselves as influencing state policy making, either on their own or through professional associations. The professional networks established by most of the superintendents in our sample are largely localized within the district and with other districts located nearby, and they are typically more focused on coping with state policy mandates than on shaping those policies to begin with. There is some evidence that superintendents participate in lobbying or making efforts to influence state policy, but only as participants in coalitions. Overall, superintendents and other district officials seem to play modest roles in the states' policy activity. State superintendents' associations were rarely mentioned as important sources of influence by superintendents, just as they were rarely seen to be present in the circles of influence described by state policy makers.

Loose coupling. Senior district staff view their work as loosely coupled with the state. Districts' sense of engagement with policy making and SEAs varies by state policy culture.

- Districts located in more *traditional political culture*³⁰⁴ states saw themselves as working toward authentic compliance with state policies. *Authentic compliance* implies accepting the requirements of state mandates and expectations, but tailoring policy to local circumstances. Data from Tortuga Shoals and North White Pine provide empirical evidence for this conclusion. In both the traditional states, mandates and limited state support for implementation were assumed, but states provided the framework within which local policy was worked out. District leaders leveraged state policy to frame, focus, and mobilize local improvement efforts.
- Districts located in states with *individualistic political cultures* (Danhill and Middle Region) saw state policies as less central to their improvement agendas, and they viewed their local work as loosely coupled with state policy making. They also did

³⁰⁴ For definitions of state political cultures, see pp. 217-218 in this report.

not seem to be concerned about sanctions. Like the traditional states, they did not see themselves as reliant on state help; they believed that it was up to the district to design and implement effective school-improvement policies. They all expressed a sense of being responsible for designing and implementing their own policy initiatives (while complying with the details of state policy).

- While we have not presented the relevant case data here, two smaller districts located in states with a clear or moderate *moralistic political culture* (Oregon and Nebraska) saw themselves as collaborative partners with the state. In both cases, district administrators believed there were people in the state agency who could assist them in finding resources—or perhaps even provide resources, directly or through the state’s regional service agencies. They also described ways in which they participated in opportunities created by the state to shape state improvement policies.

Based on our previous analysis of interviews with state-level policy actors and stakeholders, we conclude that district actors share many of the same assumptions about *how educational policy and improvement gets done here*, and that they adapt their own responses to the state’s traditional ways of developing and implementing policy. While we would not go so far as to say that state policy culture determines how smaller districts respond, our data suggest that how districts respond to increasingly uniform standards and assessment policies will be significantly affected by the state’s political culture. We hypothesize that in traditional states, small and medium-sized districts are more likely to see themselves as compliant actors; in individualistic states, they are likely to view themselves as free to interpret standards in their own ways; and in moralistic states they are likely to see states as partners in improvement.

But what about larger districts? Our analysis here has focused on the smaller districts in our sample. We did analyze data from larger districts, although less deeply. As expected, we found that the larger districts in our sample, irrespective of the state in which they are located, see themselves as responsible for their own future and view the development of their internal resources as the key for improvement efforts. However, there are clear differences among the larger districts:

- Three “semi-urban” districts in our sample were large, but located outside a major urban area. Rather than being in a “declining” urban core, they served expanding, increasingly diverse populations. They typically saw themselves as disengaged from state policy because they believed that they were far ahead in their locally developed improvement plans. Compliance was a given, but the need to comply did not drive or shape these districts’ priorities. In this regard, they were more like Danhill and Middle Region, but with far greater resources, both financially and in the district offices.
- Four inner-city districts, on the other hand, were “resisters” who blamed the state for unfair policies that worked to the disadvantage of schools and students they served. In one case, the district had sued the state in an effort to stop enforcement of some components of the standards and accountability procedures.

Some of these differences warrant more thorough investigation and analysis. At this point we emphasize that it is important to look closely at district responses to the standards and accountability movement, and to avoid equating public statements by national and state spokespeople with the more pragmatic responses of district administrators whose primary objective is to develop local policies to improve the lives and achievement of their students.

Implications for Policy and Practice

Six implications for policy and practice emerged from this section of our study.

1. State policy makers need to engage more strategically in determining how they can provide support for the development and implementation of locally-defined priorities for improvement of teaching and learning within the framework of state standards and accountability policies and the practical realities of local community contexts.
2. State policy makers and education agencies should find ways to disseminate the creative initiatives that local districts develop to comply with and exceed state policy expectations and expand on those expectations in light of local needs and priorities.
3. State policy makers and education agencies need to be more responsive to legitimate district concerns about unforeseen inequities arising from the implementation of well-intended government policies.
4. District authorities, particularly superintendents, should consider how best to develop quality performance benchmarks in addition to the minimum standards mandated by the states. Additional standards should be based on nationally normed tests, as well as those established by the state.
5. District authorities should develop more consistent networks to engage with state policy development and adaptation. These networks should be consistent with the variable needs and priorities of districts with different capacities and demographic profiles.
6. District leaders are able to effectively define and pursue local goals and priorities when they shape local understanding of state policies, and then incorporate this understanding into local education priorities, policies and services.

**Table 3.3.6
How District Leadership Varies in Response to State and Federal Policies**

State Political Culture	Tortuga Shoals TX: Traditional	Middle Region District MO: Individualistic	North White Pine County NC: Traditional	Danhill Regional District NJ: Individualistic
Perceptions of state policy leadership				
1. Legitimacy of state authority	Legitimacy of state authority is uncontested. Superintendent and other district leaders emphasize their duty to comply.	State legitimacy is present; however district is a vocal actor in policy development.	State legitimacy is present; district complies with standards, testing and other mandates.	State legitimacy is present; district must comply with testing programs; little interest in other state policy, which is minimal.
2. State support for districts	District contact with state support is primarily through regional service center, which transmits information about state/federal policies, and provides PD related to state policy/program initiatives.	Not addressed by district staff (note: MO has no formal regional service center system).	Very limited state support. State provides no resources or direction even though it mandates policies. Little contact except for the personnel and licensure department, which is understaffed. (Note: NC has no formal regional service center system.)	District contact with state support is primarily through regional service center, which transmits information about state/federal policies, and provides PD related to state policy/program initiatives. State government (in state capital) viewed as distant/unsupportive.
3. Coherence of state policies	District administrators accept the coherence of state/federal policies. New supt. believes that local policies and practices need to be better aligned with the intent of state curriculum and accountability policies, and emphasizes the need for vertical coherence.	District superintendent actualizes policy coherence. Two gaps in coherence that the superintendent is addressing with state and district staff: 8 th grade algebra and EOC exam, ensuring change at district level to align curriculum with state exams.	State policies driven by initiatives from the governor and legislature. District is working with the state to align assessment and accountability policies with new priorities. Local districts have to work with staff and community members to make sense of the policies because of limited direction from state.	State policies viewed as remote and out of touch with local conditions and needs, in part due to the priority placed on 29 low-income districts (Abbott districts).
4. District capacity for reform	District was high performing relative to others in region, but scores are declining. New supt. commissions	Superintendent led changes in staff, educator philosophy, and practices to increase capacity for reform.	District is classified as “low-wealth.” Its capacity for reform is limited by high teacher turnover. However,	District built internal capacity through leadership development and mentoring over time. High

State Political Culture	Tortuga Shoals TX: Traditional	Middle Region District MO: Individualistic	North White Pine County NC: Traditional	Danhill Regional District NJ: Individualistic
	system review to shake up complacency. Turnover in central office positions affects district capacity to respond to state initiatives, which is affected by state funding policies.		district builds internal capacity by partnering with external community groups and colleges. The district “grows” its own leaders so local policy stability is high, and the district is high performing.	performing/high capacity and collaborative leadership team. Retirements/retrenchments may undermine capacity in the future.
Resources for district leadership				
5. Personal contacts/ connections	Current superintendent connected to senior administrators from prior position in a larger district, and through the regional education center to network of supts. One elementary school principal takes advantage of personal network with private reading consultant to support reading initiatives.	Superintendent maintains many influential connections to the state due to his former role in the State Department of Education. Not only is he connected to state actors, he maintains his influence as a state actor.	Administrators say it is easy to contact people at DPI, but contacts are limited to personnel issues. Supt. has many professional networks, but limited to local county area.	Superintendent is focused on local networking. Lots of regional connections with other districts; sees district as a source of support to smaller districts.
6. Agency partners/ networks	Limited: Schools make use of PD offered through education service center; a multi-year support relationship with developer of math program ended due to dissatisfaction. Superintendent relies on a regional consultant to do a “curriculum audit” to give direction and legitimacy to new system-wide improvement plan.	Limited/Moderate: Superintendent partners with other superintendents for support. However, he identifies his most important networks as internal to the district, emphasizing the role of principals.	Moderate: Local universities and colleges; Southern Association of Colleges and Schools; Community Economic Growth Development group.	Moderate: Local universities and colleges work on reform; some business support. Most emphasis is on networking within the district.

State Political Culture	Tortuga Shoals TX: Traditional	Middle Region District MO: Individualistic	North White Pine County NC: Traditional	Danhill Regional District NJ: Individualistic
7. District as a policy actor	District believes that its role is to implement state policy. Weaker test performance is attributable to failure to align curriculum and instruction to changes in state curriculum and assessment. The intent is to achieve more authentic compliance with state policy expectations.	The superintendent advocates for change in state standards and testing on behalf of his district. Most recently, the district is pushing the state to allow 8 th graders to take the end of course (EOC) Algebra exam with 9th graders.	District views itself as state policy actor, and lobbies the state (through legislative representatives) whenever an issue is relevant. Administrators note the district voice is not as powerful as others.	District does not view itself as a state policy actor, Superintendent sees himself as a maverick who operates outside of the usual ways of doing business in the state; district regards itself as a leader rather than a follower.
8. Pre-existing strategic direction	System previously loosely coupled to state policy with little internal coordination. Current supts. emphasize coherence within district and between district and state, and improved teamwork across organizational units. Pre-existing and ongoing local concerns and directions include teen pregnancy, Voc. Ed., and high school completion.	The district emphasizes increasing expectations for academic rigor, student achievement, reporting processes, professional development, and alignment of curriculum to meet or more importantly, exceed state standards. The focus of district staff is district transformation and move to the "front of the pack" in student achievement in the state.	The district prides itself on strong district leadership. However, recent district direction and goals come from the state and related NCLB policies. Recent state-wide mandates have interfered with the strategic preferences for promoting experimentation at the school level before doing system-wide change.	Strategic directions are set by the perception of variability among the schools and constituencies, and by the need to be inventive to finance quality schools. Quality is based largely on recruiting/retaining high quality staff.

3.4

State Leadership for School Improvement: A Synthesis of Implications for Policy and Practice

The evidence reported in the three sections of Part Three warrants a series of implications for policy and practice.

Implications for Policy

1. *Legislation should be introduced to support internal collaboration and organizational change on the part of SEAs.*

This recommendation responds to the mandates in national and state legislation which demand that SEA staff from different offices break out of their silos and share responsibility for educational success. The process of internal collaboration and organizational change is slow in many states; it could be better supported through direct legislative and gubernatorial action.
2. *SEAs struggle with inadequate resources in their efforts to meet new responsibilities. They cannot solve this problem on their own. A response on the part of state legislatures and governors, as well as the federal government, is needed.*

SEAs have been obliged to take on new responsibilities as a consequence of the standards and accountability movement. Often they are not adequately funded or equipped to meet these responsibilities. States should acknowledge this problem and take appropriate action to enhance the SEAs' capacities (or to reduce monitoring requirements that are less directly connected to student learning). Testimony from SEA staff members across the 10 states suggests that state agencies do not receive enough funding to carry out their new federally mandated obligations adequately, which means that they believe that districts are not receiving needed support. Solutions may include new funding or changes in staffing priorities.
3. *State leaders should acknowledge the increasingly important role of districts as collaborators in the policy process.*

Our data suggest that state policy makers rarely incorporate the views of district leaders in the legislative and agenda-setting process (except, occasionally, through association lobbying). Given the central role that we find for the districts, both from SEA, principal, and district data, this oversight should be addressed in order to create more systemic policy initiatives.

Implications for Practice

1. *School improvement requires the participation of all leaders.*
Our findings complement those of Part I, where distributed leadership effects on student achievement were among the most significant. In most states, there are few forums for creating dialogue that might influence how people at all levels make sense of state standards, tests, and other measures of student development. When SEA staff members emphasize their role as service providers rather than compliance monitors, they are in a position to improve their relationships with district and school staff members. When legislators and key policy makers talk to district superintendents, they are more likely to tweak existing policies and develop new ones that are consistent with the various contextual features of districts and schools. As relationships improve, they have a measurable effect on district and school efforts to improve teaching and learning.
2. *Collaboration in implementation is a state's greatest ally.*
People in many workplace settings report that when they collaborate with others, their job satisfaction is greater, they have a stronger sense of efficacy, they are more optimistic about their ability to achieve improvement outcomes, they are better able to create links to outside agencies, and they are more optimistic about meeting new demands.
3. *There needs to be increased focus on how best to meet the different leadership needs associated with variable contexts (location and demography).*
All states have more rural than urban districts; all confront the strains that differences in student demographic characteristics place on the provision of educational support services. We suggest that state policy makers need to consider that one size does not fit all when considering how the state will support school and district leaders in meeting new accountability challenges.
4. *States should do more to support the preparation and professional development of district leaders, district-level staff members, and SEA staff members.*
Although pressure on school and district leaders is increasing, the level of support (professional development and expertise) extended to them has remained constant or has declined. This is a problem that calls for additional state funding. Since the preferred policy lever in most states is mandates rather than capacity building, the solution here will require a shift in thinking at the gubernatorial and legislative levels.
5. *State- and district-level policy makers need to engage more strategically in determining how states can provide support, not just pressure, for implementation of locally defined priorities for improvement within the framework of state standards and accountability policies.*
For example, state policy makers and education agencies should find ways to disseminate creative initiatives on the part of local districts to encourage authentic

compliance or even higher standards than those set by state policy, while acknowledging local differences.

6. *States need to listen to district officials as they voice their concerns about state policies.* In particular, state policy makers and education agencies need to be more responsive to legitimate concerns about unforeseen inequities arising from the implementation of well-intended government policies.

Conclusion

We began this investigation of the links between leadership and student learning more than six years ago. Our work examined the multiple levels at which leadership can be exercised in education—from the classroom to the statehouse. In 2003, we wrote the following in our review of the literature which informed our study:

[Leadership] efforts will be increasingly productive as research provides us with more robust understandings of how successful leaders make sense of and productively respond to both external policy initiatives and local needs and priorities. Such efforts will also benefit considerably from more fine grained understandings than we presently have of successful leadership practices, and from much richer appreciations of how those practices seep into the fabric of the education system, improving its overall quality and substantially adding value to our students' learning.³⁰⁵

Our research has uncovered many fine grained behaviors that are elements of being an effective leader and has pointed to the conditions that encourage or discourage these productive actions. Principal - teacher relationships, district leaders' interactions with principals, and policy decisions at the state level all are intertwined in a complex and changing environment. We found links between all elements of our theoretical framework, with some having a more direct relationship with student learning.

Principals, who are the formal leaders closest to the classroom, are most effective when they see themselves as working collaboratively towards clear, common goals with district personnel, other principals, and teachers. These leaders are more confident in their leadership and are experiencing greater efficacy. In addition, district support for shared leadership at the school level enhances the sense of efficacy among principals.

When principals and teachers share leadership, teachers' working relationships with one another are stronger and student achievement is higher. District support for shared leadership fosters the development of professional communities. Where teachers feel attached to a professional community, they are more likely to use instructional practices that are linked to improved student learning. Our results suggest that a particular, single best way to distribute or share leadership does not exist. Rather, leadership distribution patterns are affected by the goals that school personnel associate with certain tasks. The more encompassing the goal, the greater the likelihood that multiple sources of leadership will be appropriate.

We found that higher-performing schools generally ask for more input and engagement from a wider variety of stakeholders and provide more opportunities for influence by teacher teams, parents, and students. Finally, while principals and district leaders continue to exercise more influence than others in all schools, they do not lose

³⁰⁵ Leithwood et al. (2004b), p. 12.

influence as others gain it. Influence does not come in fixed quantities. Influential leaders wishing to retain their influence may share leadership confidently.

Expectations and accountability measures also emerged as a major focus for leadership activity throughout our investigation. In districts where levels of student learning are high, for example, district leaders are more likely to emphasize goals and initiatives that reach beyond minimum state expectations for student performance, while they continue to use state policy as a platform from which to challenge others to reach higher ground. In schools that are doing well, teachers and principals pay attention to multiple measures of student success.

Finally, we found that, overall, state initiatives matter. States, for all the variability in their approaches to policy making, are firmly focused on standards and accountability. Most make use of state mandates, and pay more limited attention to support and professional development for leaders. The translation of legislative and gubernatorial initiatives into support for schools falls to the state agencies, which are struggling to realize a significant change in their roles, shaped by the standards and accountability movement. Districts and schools generally view states as partners with limited vision and even fewer resources. They move forward as best they can with efforts to comply with the spirit of state discussions and agendas, or to take account of the meaning behind the prescribed state plans and to exceed the minimums.

Reform in the U.S educational system is both lively and messy but, as educators grapple with emerging demands, we found that leadership matters at all levels. Leaders in education provide direction for, and exercise influence over, policy and practice. Their contributions are crucial, our evidence shows, to initiatives aimed at improving student learning, and of course ultimately to the future in which we all share.

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Appendix A

METHODOLOGICAL APPENDIX

Introduction

As proposed and undertaken, our study was large and complex. The specifics of sampling, instrumentation, data collection, coding, and analysis evolved from what we proposed to the Wallace foundation in 2003. For the project as a whole, we collected two rounds of survey data from principals and teachers and three rounds of site-visit data from schools and districts, including classroom observations and interviews with teachers and building and district administrators. We also interviewed state-level education leaders in two rounds. We sampled states to ensure variation in geography, student demographics, state governance for education, curriculum standards, leadership policies, and accountability systems. We sampled districts to achieve variation in size and demographic diversity. We sampled schools to ensure variation in school level and demographic diversity. We obtained student achievement data for literacy (reading or language arts) and mathematics from scores on the states' tests for measuring Adequate Yearly Progress (AYP) mandated by the No Child Left Behind Act of 2002 (NCLB).

The Sampling Plan

Our sampling of states, districts, and buildings went through three stages. First, in our response to the Wallace Foundation's RFP, we proposed a sampling plan that led to a schematic "proposed sample." Second, we undertook the actual state, district, and building sampling with a modified sampling plan, and it led to the "selected sample." Finally, following our district and building recruitment plan, we gained our "achieved sample."

The proposed sample

We proposed a stratified random sampling plan for survey data collection that would yield nine states, five districts per state, and four schools per district. We proposed to sample three states from each of three regions—the East Coast, the South, and the Midwest and West. We proposed that the 45 districts would be stratified by size and level of student poverty/diversity and would be a uniform distribution of districts across these variables (Table A.1). We show our criteria for classifying districts in Table A.2.

District Size	Diversity/Poverty		
	High	Medium	Low
Large	5	5	5
Medium	5	5	5
Small	5	5	5

Table A.2 District Classification Criteria					
Size		Poverty		Diversity	
Number of students		Percent of students qualifying for free or reduced lunch		Percent of white students	
Large	25,000 and above	High	66% or higher	High	Less than 18%
Medium	2,500 - 24,999	Mid	18% - 65%	Mid	18% - 65%
Small	600* - 2,499	Low	Less than 18%	Low	66% or higher

*Six hundred was our lower limit for district recruitment purposes. Although 36% of school districts in the U.S. had fewer than 600 students, they accounted for just 3% of the student population.

We proposed that the 180 schools would be a uniform distribution across the poverty/diversity variable and building level (Table A.3).

Table A.3 Proposed School Sample: Level By Diversity / Poverty			
School Level	Diversity/Poverty		
	High	Medium	Low
Elementary	20	20	20
Middle School	20	20	20
High School	20	20	20

The state sample

In the RFP under “Site Selection,” the Wallace Foundation made it clear that it expected the research to be undertaken in *some* of the states and districts that were then involved in their funded leadership development efforts, especially in the 15 states in the SAELP (State Action for Education Leadership) consortium and the 12 LEAD districts (Leadership for Education Achievement in Districts) in 12 of the SAELP states. Wallace did not require bidders to include all of the sites they funded and did encourage bidders to consider studying sites outside of the funded pool. In our proposal, we showed an example selection of nine states from the three regions that included four SAELP states. When we actually sampled states, we agreed to aim for four Wallace funded states. We decided to restrict the selection of the four to those where funding was at the state level (SAELP) and at the district level (LEAD). We thought that limiting the Wallace funded sample to four would allow our total sample to not be overly biased by the presence of external funding for leadership development. We also wanted to ensure that the final sample of states contained adequate variation on a range of variables that we believed were potentially relevant to understanding leadership at the state and local levels, and that would be consistent with variation across the country.

The state sampling process

- We divided the states into geographic quadrants—East, South, Midwest, and West (Table A.4).³⁰⁶ In deciding where to draw the lines of these quadrants we took into account historical conventions, geography, and population density. The purpose of establishing the quadrants before random sampling was to ensure that we got a reasonable distribution of states across the country.
- We assigned each state a separate number (1 to 48) from a computer generated random sequence.
- We sorted the states in each quadrant in ascending order by their randomly generated number.
- We selected the first SAELP and LEAD funded state from the list for each quadrant.
- We selected the second SAELP and LEAD funded state for each quadrant as an alternate.³⁰⁷
- We selected the first three non-SAELP funded states within each quadrant to complete the basic sample pool.³⁰⁸
- We selected the next two non-SAELP funded states from the list within each quadrant to provide randomly generated alternates to the original pool.

Following our state sampling process, we formed a basic pool of 16 states with the first selected SAELP and LEAD funded state and the first three non-SAELP funded states from each quadrant. We next examined the variation on the variables we were concerned about: poverty, racial/ethnic diversity, number of school districts, per pupil spending, state board governance structures, principal certification requirements, principal shortage levels, National Assessment of Educational Progress scores in reading and mathematics, minority achievement and graduation rate gaps, state accountability systems, and number of charter schools. Drawing these data from national sources and state websites, we constructed a matrix that enabled us to display and analyze the variability within our randomly generated 16-state sample.

We were satisfied with the range of variation achieved with our initial sample of the eight states comprised of the first SAELP and LEAD funded state and the first non-SAELP funded state, but we identified a few variables for which the degree of variation could be enhanced with the selection of the ninth state. We chose the ninth state strategically from among the remaining states in the initial pool because it best complemented the variation obtained with the first eight.

³⁰⁶ As two of the five districts in each state would be site visit districts as well as survey districts, we excluded Hawaii and Alaska because of travel costs. We also excluded Washington DC because of its atypical governance circumstances.

³⁰⁷ No alternate state was available in the West as no other state had both SAELP and LEAD funding.

³⁰⁸ Five states would be selected from the non-SAELP funded states – one state each from three quadrants and two states from one of the quadrants.

Table A.4 Forty-eight contiguous states divided into quadrants			
EAST (11)		WEST (11)	
Connecticut	New Jersey	Arizona	New Mexico
Delaware	New York	California	Oregon
Maine	Pennsylvania	Colorado	Utah
Maryland	Rhode Island	Idaho	Washington
Massachusetts	Vermont	Montana	Wyoming
New Hampshire		Nevada	
MIDWEST (12)		SOUTH (14)	
Illinois	Nebraska	Alabama	Missouri
Indiana	North Dakota	Arkansas	North Carolina
Iowa	Ohio	Florida	South Carolina
Kansas	Oklahoma	Georgia	Tennessee
Michigan	South Dakota	Kentucky	Texas
Minnesota	Wisconsin	Louisiana	Virginia
		Mississippi	West Virginia

Before going further, we reported the selection criteria and the names of the selected nine states to our program officer at the Wallace Foundation. The program officer had a few questions about the selection and asked for clarifications before presenting our state selection to the senior leadership team in the education division at Wallace. Their approval of our selected sample came a few days later.

We did not “recruit” the states, as there is no person who can say yes or no to a request to participate for the state. We did, however, write a one-page letter to the highest ranking education officer of each state telling him or her about the study and that their state had been randomly selected.³⁰⁹ We also invited him or her to consider taking part in the state leader interview component of our investigation. We attached a more detailed description of the project and a consent form to participate in an interview.

District and School Sampling

The district sample

From the website of the National Center for Education Statistics (NCES, <http://nces.ed.gov/>) we downloaded their most current demographic data for all districts in each of the nine states in the selected sample. The uniform distribution of districts across size and poverty/diversity we show in Table A.1 was not possible with our selected state sample because of the demographic realities in the nine states. For example,

³⁰⁹ Depending on the state, we wrote to the Superintendent of Public Instruction or the Commissioner of Education or Secretary of Education or Chancellor of the State Board and so on.

a majority of small districts are rural, and rural communities tend to have less racial and ethnic diversity in some parts of the country. Similarly, it is much easier to find low poverty small districts than low poverty large districts: there were only seven low poverty, large districts in the nine selected states, but all seven were in one state. Even so, our nine-state selected sample fairly captured differences in student enrollment across the 48 states. We had two high enrollment states (1,500,000 or more students), four medium enrollment states (500,000 to 1,500,000 students) and three low enrollment states (fewer than 500,000 students). Our sample included states that had low minority populations, states that had high nonwhite minority populations in a single race/ethnicity category, and states that had large but more diverse nonwhite minority populations.

We then generated an initial sample pool of 80 districts (about nine per state) with size, poverty and diversity in mind (Table A.2). In keeping with our decision to sample five districts per state, we then ensured that in every state the selected sample reflected variation on all three variables. We initially selected³¹⁰ at least one large, medium, and small district from each state. In terms of poverty, we selected districts representing all three levels where possible, if not, then two. We also selected for high, medium, and low diversity districts in all states, ensuring that at least two if not all levels were represented. The size, poverty and diversity breakdowns of the selected sample were:

Size	Poverty	Diversity
14 Large	17 High	10 High
16 Medium	20 Medium	19 Medium
15 Small	8 Low	16 Low

We agreed that the variation of the selected sample provided a best approximation of what we were looking for, but it was not a replicating sample in each state. We were satisfied with the sample for the kinds of analyses we envisioned doing.

Generating a list was easy compared with recruiting the selected districts to participate in the study. To recruit the districts, we first sent superintendents a letter seeking their participation and followed up the letter with telephone calls. In the letter to the superintendents, we told them about the study and that their district had been randomly selected to participate. To participate, districts had to agree to be part of our survey data collection. For their participation, we offered the district an incentive of a one-time stipend of \$500. We informed them that in our survey data collection we would be inviting principals, assistant principals, and teachers to respond to a written survey about leadership policy and practices that bear on teaching and learning; that we would conduct the principal and teacher surveys in four schools per district representing elementary and secondary schools; and that we would be conducting a second round of surveys in the final year of the study (2008). We also recruited two of the districts per state as site visit and survey districts. To these 18 districts, we offered the \$500 incentive and a one-time stipend of \$200 to each school visited (typically two buildings per district). Anticipating that some superintendents would ask with which schools we proposed to work, we were ready with a

³¹⁰ If two or more districts satisfied the demographic characteristics under consideration, we randomly selected districts with the SAMPLE command in SPSS; if there was only one district that satisfied the desired demographic conditions, we took it.

proposed selection (see discussion of the school sample below).

Recruitment was slow going. The initial samples of eight or nine districts per state were used up as the refusals came in. The most frequent refusal claim was that they were “too busy.” We suspected that some were afraid of having their “leadership problems” become public knowledge. In the face of that vulnerability, our assurances of anonymity were not enough to encourage risk taking. When the initial sample of districts was used up before getting five to agree to participate, we went back to the data base and sampled further, sent letters, and followed up with calls. The districts in one state were particularly unwilling or unresponsive. All but one of the first eight selected districts in this southern state refused to participate, some even refusing to reply. We despaired of ever scheduling a site visit. After considerable deliberation, we decided to abandon the state and go to the first alternative in the state sample. We essentially lost four months of recruiting effort. Unfortunate too was that by that time, we had already conducted eight telephone interviews with senior education officials in the state. The alternative state was a reasonable match in terms of preserving the sampling balance we had initially achieved. The alternative was Louisiana, and the recruitment was going well enough when Hurricane Katrina struck in late August, 2005. By mid-September we concluded that with the devastation in much of the state, we had to give up Louisiana. In its place we took the next sampled alternate in the South, North Carolina. In the end, the achieved state sample was New Jersey and New York (East), Missouri, North Carolina, and Texas (South), Indiana and Nebraska (Midwest), and New Mexico and Oregon (West).

The achieved district sample. The achieved district sample reflects the challenges and realities of recruiting school district participation in research studies of this sort. In all of the states, some if not most of the originally selected districts declined to participate for one reason or another. Only 21 of the original 45 selected sample districts (47%) agreed to participate and were in the achieved sample. We replaced districts that refused with others that matched the size, poverty, and diversity profiles of the original districts to the extent possible. In one state, for example, we recruited 14 school districts before getting agreement from five for the study. This was typical for most states, but in some the recruitment process was even more difficult: In two states, we only were able to recruit four districts each for an achieved sample of 43 rather than 45 districts. The size, poverty and diversity breakdowns of the achieved sample were:

Size	Poverty	Diversity
11 Large	9 High	7 High
19 Medium	26 Medium	22 Medium
13 Small	8 Low	14 Low

Eighteen (two per state) of the 43 districts in the study agreed to be site visit districts. The size, poverty, and diversity breakdowns of the site visit districts sample were:

Size	Poverty	Diversity
6 Large	4 High	3 High
6 Medium	10 Medium	8 Medium
6 Small	4 Low	7 Low

What appears to be an even distribution by size of site visit districts mask the actual variability across the nine states:

- Four states had one small and one large site visit district
- Two states had one medium and one large site visit district
- Two states had one small and one medium site visit district
- One state had two medium site visit districts.

The building sample

We undertook the building sample as soon as we had the selected state and district samples. From the NCES website, we downloaded their most current demographic data for all buildings in each of the 45 districts in each of the nine states in the selected sample.

The building sampling process

- We wanted *regular* schools, so we did not consider, that is, allow in the sampling data base, service schools such as arts, technical, special education, alternative, evening, hospital, home bound, incarcerated, and so on.
- We did not consider buildings of all one grade.
- We did not consider buildings with all grades, K – 12, in a single building.
- We did not consider charter or magnet schools.
- We did not knowingly consider primary only centers.
- All sampling was within a state.³¹¹
- Our sampling ideal was 20 per state, which was plus/minus 4 per district, for 180 schools total (Table A.3) but we decided to sample five schools per district (25 per state, 225 total), which would allow for a 25% cushion against likely refusals to participate even though we had the superintendent’s blessing in each district prior to getting in touch with building principals.
- We tried to draw one high school, two middle/junior highs, and two elementary schools per district. In each case, we tried to sample from among schools that had the same high, medium, or low poverty and diversity profiles as did the district overall. Where we could not achieve this, we went for another building at the same level in the same district that was off the poverty/diversity profile by only one step. When that did not work either, as it did not in several small districts, we tried to sample the same building level with the same poverty/diversity profile from another of the same sized districts. Where that did not work, we tried to sample the same building level with the same poverty/diversity profile from another district that was just one step larger.

In the end, in the 45-district selected sample, we selected 219 buildings. The building level, poverty, and diversity breakdowns of this resulting selected building sample were:

³¹¹ If two or more buildings satisfied the demographic characteristics under consideration, we randomly selected the desired number of buildings – for example, two elementary buildings per district – with the SAMPLE command in SPSS; if there was only one building that satisfied the desired demographic conditions, we took it.

Level	Poverty	Diversity
90 Elementary	78 High	56 High
81 Middle	103 Medium	84 Medium
48 High School	38 Low	79 Low

The selected building sample departed from the idealized 20 per school level by poverty or diversity levels. Table A.5 shows the crosstabulation of school level by poverty level in the selected building sample.

School Level	Poverty		
	High	Medium	Low
Elementary	33	41	16
Middle School	33	37	11
High School	12	25	11

This selected sample was made *before* getting in touch with the superintendents. Our view was that we had to be flexible in approaching superintendents with the four or five buildings we wished to survey, and of those the two we wished to visit. We acknowledged that we would follow their preferences if they wished to make changes in our lists. Of course, some superintendents did make changes. Fifty-three percent of the selected districts refused to participate and were replaced by alternates (and in many cases, those alternates were replaced by alternates). We resampled each replacement district's schools following the same procedures outlined above.

Once again, generating a list was easy compared with recruiting the selected buildings. We first sent principals an e-mail seeking their participation and followed up with telephone calls. In the e-mail, we told them that their superintendent had elected to participate, that their school had been selected and their participation approved by the superintendent, and outlined what participation entailed. For the site visit buildings we told principals about the \$200 incentive.

The achieved building sample. As with the achieved district sample, the achieved building sample reflects the challenges recruiting schools to participate in research studies of this sort. Only 76 of the original 219 selected sample buildings (35%) agreed to participate and were in the achieved building sample. We replaced buildings that refused with others that matched the size, poverty, and diversity profiles of the original buildings to the extent possible. The achieved sample was 182 buildings. The district size, building level, poverty, and diversity breakdowns of the achieved building sample were

District Size	Level	Poverty	Diversity
51 Large	43 High School	52 High	36 High
84 Medium	54 Middle School	95 Medium	85 Medium
47 Small	85 Elementary	35 Low	60 Low

Data collection

Surveys

We twice surveyed the teachers, principals, and assistant principals in all the buildings in the achieved sample. We administered the first round of surveys from February 2005, to November 2006. During that period, we administered the teacher and principal surveys continuously as districts and schools were recruited. We administered the second round in spring and summer of 2008, having revised the Round One surveys for Round Two. We developed the surveys collaboratively, producing multiple iterations following numerous lengthy discussions about items and language. Both the teacher surveys and both the principal surveys contained some items from established instruments with good reliability measures as well as many new items and scales.

Round One

We field tested both Round One surveys in 14 schools in a Minnesota suburban school district in December 2004, and January 2005. The purpose of the pilot was to improve item clarity. We discussed the instruments with selected respondents after they took the surveys. After revisions and more discussions with teachers and principals, we were ready with a Round One teacher survey of 117 items and a principal survey of 149 items. The teacher survey was an eight-page optical scan booklet with glued bindings. The principal survey was an eight-page, saddle stitched paper-and-pencil booklet.

The teacher and principal surveys measured perceptions of both district leadership practices and district conditions or characteristics. In the surveys, all but one of the perception or attitudinal variables were measured using six-point scales (from “strongly disagree” to “strongly agree”). Other response categories included choices about “how many” (six steps from “none” to “all”); “how often” (six steps from “never” to “very frequently”); and “how much” (six steps from “none” to “very great”). The principal survey also had some items in which the response categories were five steps from “very little” to “very great.” We divided the Round One teacher survey into sections with items about:

- The classroom, for example
 - I have a manageable number of students in my class(es)
 - I am able to monitor the progress of all my students to my satisfaction
- The school
 - Disruptions of instructional time are minimized
 - The school schedule provides adequate time for collaborative teacher planning
- Teachers
 - Teachers should prompt students to explain and justify their ideas to others (teachers and peers)
 - I regularly incorporate student interests into lessons
- Principal leadership practices
 - The principal provides useful assistance to you in setting short-term goals for teaching and learning

- The principal gives you individual support to help you improve your teaching practices
- School and home connections
 - How many parents/guardians of students in your class(es) usually attend parent-teacher conferences
 - How many parents/guardians of students in your class(es) do you contact in the first half of the school year
 - Demographics
 - How many years have you worked as a teacher
 - How many years have you worked in this school as a teacher?

We divided the principal survey into sections with items about:

- State policy and influences, for example
 - State standards stimulate additional professional learning in our school
 - State policies help us accomplish our school's learning objectives
- District leaderships
 - My district's leaders in the central office give schools a sense of overall purpose
 - My district's leaders in the central office demonstrate high expectations for my work with staff and students
- School leadership and conditions
 - Most teachers in our school share a similar set of values, beliefs, and attitudes related to teaching and learning
 - There is ongoing, collaborative work among teachers in our school
- Stakeholder influence
 - My school solicits input from community groups when planning curriculum
 - My school includes community leaders and organizations when making important decisions
- Professional development
 - My professional development has a significant role in helping me make decisions about curriculum
 - My professional development has helped me to use data more effectively
- Demographics
 - How many years have you worked as a principal
 - Including you, how many principals has your current school had in the past 10 years?

School administrators—mostly principals—recruited or encouraged their teachers to fill out the survey. We made no personal appeals to the teachers to participate. We intended to survey all teachers in the achieved school sample. We defined teacher as a part-time or full-time school employee who is certified or licensed as a teacher and who carries out instructional responsibilities.

We mailed the teacher and principal surveys to 179 schools. Of the 331 principals invited to complete the survey in the 179 schools, 260 (157 principals and 103 assistant principals) returned a completed survey, for a response rate of 78.5%. We sent surveys to

all teachers (6,832) in the 179 schools. Teachers returned 4,491 surveys from 43 districts and 158 schools. The response rate was 65.7%.

We mailed the surveys in bulk to individual schools to the attention of the principal. Typically teachers completed surveys during a staff meeting. A blank, sealable envelope accompanied each survey to help ensure confidentiality. In a few cases, district administrators requested that we mail surveys to the district office for distribution. Each survey packet contained:

- A cover letter to the principal
- A sheet of instructions for administering the surveys
- A teacher survey for every teacher
- A principal survey for every principal and assistant principal
- A sealable envelope for every teacher and principal
- A project description for every teacher and principal
- Postage-paid, preaddressed envelopes for returning the surveys.

If we did not receive completed surveys within three to four weeks after our mailing, we telephoned and e-mailed the principal to inquire about the surveys. When a principal reported that the surveys had not arrived, we sent a second packet. We attempted to get in touch with unresponsive schools no fewer than four times. In a few cases, principals opted out of the study after receiving the surveys.

The University of Minnesota's Office of Measurement Services formatted and printed the teacher survey and scanned the surveys upon return. They gave back the scanned surveys and a data base. As part of data cleaning, we identified cases missing all or most of the data in the data file and examined the paper survey. In almost all cases, the data were indeed missing. Only a very few could not be scanned, because the teacher had completed the survey in red pen or with check marks. We entered those cases manually. Project staff entered the returned principal survey responses manually into an SPSS file. Staff randomly selected five percent of the principal survey returns, entered the data again and compared it to the first entry. They detected a less than one percent error rate. Of course, they resolved the discrepancies. When we ran a similar quality control check of the Round Two principal survey data entry, we detected an eight percent error rate. Different staff members then re-entered all the data, compared the two sets and resolved all conflicts. Rechecking the new file with 10% of the cases, we found less than a 1% error rate.

Round Two

For Round Two, we collaboratively developed a revised 131-item teacher survey and a 105-item principal survey. We used identical items from the Round One surveys when we wanted repeat measures, such as in the case of a factor analysis. Items from the Round One survey were dropped for reasons of economy when an item had little variation in its response spread, so that we could add new items for deeper inquiries that had arisen from our first round of data analysis. Again, the teacher survey was an eight-page optical scan booklet with glued bindings, and the principal survey was an eight-page, saddle stitched paper-and-pencil booklet.

We mailed the surveys to 177 schools with a total teacher population of 7,075. Teachers returned 3,900 surveys from 134 schools in 40 districts for a response rate of 55%. As in Round One, the teachers completed the surveys anonymously, with each survey placed by each respondent into a sealable envelope. The schools collected and returned the surveys. Three hundred fifty-one principals returned 211 surveys from 122 schools in 40 districts for a response rate of 60%.

We divided the Round Two teacher survey into sections with items about the school, teachers, classroom, school administrator(s) leadership practices, district leadership, home and school connections, and demographics. We divided the principal survey into sections with items about the principal's areas of expertise, school conditions, school leadership, district leadership, district policy conditions, state policy and influences, parents and community, and demographics.

Again, the teacher and principal surveys measured perceptions of both district leadership practices and district conditions or characteristics. In the surveys, all but one of the perception or attitudinal variables were measured using six-point scales (from "strongly disagree" to "strongly agree"). The one other response set used a five-point scale from "strongly disagree" to "strongly agree" with a mid-point of "uncertain." Other response categories included choices about "how many" (six steps from "none" to "all"); and "how often" (five steps from "never" to "10 times or more" or four steps from "not at all" to "every time"). The principal survey also had some items in which the response categories were four steps from "basic" to "highly developed"; and five steps from "very rarely" to "very often."

Student achievement

We were guided by five general principles in our research. Principal 4 was "Make the best use of existing student achievement data." As we wrote in our proposal to Wallace, ideally we would have wished to administer the same achievement tests to students in sampled classrooms of the 180 schools in the study, but in practice that was not possible. Because of the 2002 NCLB legislation, we assumed that all students within a state would use the same tests for literacy and mathematics. Thus, we obtained student achievement data for English and mathematics from scores on the states' tests for measuring Adequate Yearly Progress mandated by the No Child Left Behind Act of 2002.

We downloaded these data from the public, on-line records in each state's department of education website. In trying to fill in gaps in state reporting, rarely did we find the missing achievement data on district or building websites. A school's student achievement was represented by the percentage of students meeting or exceeding the proficiency level established by the state on mandated literacy and math tests. If states or districts tested math or literacy proficiency in more than one grade in elementary or in secondary schools, we averaged the percentages across the grades within the building level, resulting in a single achievement score for each school. We began by assembling district and building proficiency data for 2002-03, 2003-04, and 2004-05. Over the subsequent years of the study, as annual testing data became available, we added it to the

student achievement data base. And over the years from 2002-03 through 2006-07, data across the states were more complete and the state department websites easier to navigate. Particularly in the first year or two of our work, the availability of data for all schools in all districts in all states was uneven.

Interviews

Districts and schools

We collected three rounds of site-visit data from schools and districts. These occurred in years two, three, and five of the study. Two districts in each of the nine states had agreed to be site visit districts. Typically we visited two buildings (one elementary and one middle school or high school per district), but in two of the small districts we visited three buildings each, which were all the regular buildings in those two districts. Besides the interviews with teachers and administrators, we also conducted four or five classroom observations in each building. Thus we had site visit data from 38 schools and 18 districts. The data collection also extended to community members not employed by the districts.

We developed 10 separate, role-specific interview protocols collaboratively following numerous discussions about items and language. Even with a written script, we agreed that the interviews were to be semi-structured and more conversational than formal. With the interviewee's permission, we made an audio recording of the interview. We later transcribed verbatim all recorded interviews. We designed the district and school site visits interviews to take from 45 minutes to an hour each. There were four district level protocols: superintendent and district staff, school board member, business and community groups, and union leader. There were six building level protocols: principal and assistant principals, student support professionals, teacher interview (after observing his or her teaching),³¹² lead teacher interview, community representative, and active parents. All four district interview protocols featured the same major categories, and within each we tailored language and probes to suit the role of the interviewee. The major district interview categories were:

- Policies and leadership
- Relationships (for example with their state's department of education, school board, and other external stakeholders)
- Political culture and collaboration
- Capacity building (developing district leaders, school leaders, and teachers).

Compared with the district interviews, the six school-level interviews were more varied, but all had all or most of the following interview categories:

- State influence
- District influence/leadership
- School leadership (distribution, development, etc.)
- Curriculum and pedagogy

³¹² The interview protocol for observed teachers was a bit more narrowly focused than many of the others. With observed teachers, the focus was on specific activities during the lessons; general approaches to pedagogy; the role of the principal as well as other leaders within the school, district, and state on pedagogy; curricular and pedagogical decision making in the school; professional development; and student learning.

- School culture
- Community (interaction, culture, support, etc.)
- Teacher leadership
- Professional development
- Leadership teams.

Typically, the site-visit teams were composed of four members and often included staff from both the University of Minnesota and the University of Toronto. Teams usually were made up of senior researchers, staff, and graduate students. The typical site visit required three working days in the schools and district offices.

In Round One, the number of interviews conducted in the 38 schools ranged from 4 to 13, the mean was 9, the median 9, and the mode 8. The number of interviews conducted at the district level ranged from 4 to 21, the mean was 9, the median 8, and there were multiple modes. More accurately, 10 of the 18 districts had 8 or fewer interviews. The two outliers of 18 and 21 interviews distort the mean. In total, in the first round of site visits, we collected 166 district interviews and 342 school interviews for a total of 508 interviews.

The second round of site visits was a smaller undertaking. At the school level we decided to interview just principals (and not teachers, support professionals, or assistant principals). We interviewed 28 principals in 28 buildings in 12 districts in 6 states (as well, one assistant principal was interviewed as were one lead teacher and one Title I teacher). In total, in the second round of site visits, we collected 83 district interviews and 32 school interviews for a total of 115 interviews.

The third and final round of interviews was a larger undertaking than the second round. For Round Three, we replaced three schools, one each in three different districts. The number of district offices interviews ranged from 0 to 7; in the 17 districts with district interviews the range was from 2 to 7. The mean was 3, and the median and mode were 2. In the third round of site visits, we collected 55 district interviews and 207 school interviews for a total of 262 interviews. The total number of building and district site visit interviews for the project was 885.

Coding district and building interviews

In our response to the RFP, we proposed we would produce a standardized coding scheme and code the transcribed school and district interviews, assembling them into a single, qualitative data base. Using NVivo, we coded the 508 interviews from the first round of site visits. Even though we coded all interview transcripts, each original transcript remained available as individual Word files. We wrote in our proposal that the coding system, given the scope of the study, would necessarily classify the interview data in rather broad categories because of the number of interviews and the number of coders. From our proposal to Wallace and the literature review that accompanied it grew the interview protocols, and from the interview protocols grew the major components of the coding scheme. Construction of the coding scheme was more conceptual as opposed to emergent, that is, it did not grow out of an examination or analysis of the resultant

interview transcripts per se. Instead, we developed the coding framework a priori to encompass the majority of interview topics. In order to increase inter-rater reliability, we piloted the coding scheme with small, randomly selected sections of interview transcripts. When we finished coding, we compared our various codings and discussed discrepancies. Based on those conversations, the coding scheme was refined. After a long period of collaborative development, we finalized the coding scheme.

In general the coding scheme was designed to capture two things, an agent and a topic area around which that agent is acting. In major outline, the coding framework contained:

Topic	Curriculum and instruction Professional development Accountability Resources Climate Decision making and planning Collaboration Student learning outcomes Organizational structures Leadership Communication Miscellaneous
Agent	State-General (Indefinite agent) State-Professional Organizations Federal-General (policy, initiatives) District-General (Indefinite agent) District-Staff District-School Board District-Professional Organizations School-General (Indefinite agent) School-Principal or Assistant principal School-Teacher School-Other Classroom-Self Classroom-Students Classroom-Other Community-Parents Community-Other
Attributes	State ID (9 sub-codes) District site ID (18 sub-codes) District size (large, medium, low) District poverty (high, medium, low) District diversity (high, medium, low)

District location (urban, suburban, rural)
School site ID
School level (elementary, middle school, high school)
School poverty (high, medium, low)
School diversity (high, medium, low)
School size (student population)
Interviewee role district (superintendent, board member, staff, parent representative, community stakeholder)
Interviewee role school (principal or assistant principal, teacher, teacher leader, other staff, parent representative)
Interviewee gender
Interviewee role experience (0-2 years, 3-5, 6-10, 11+)
Interviewee site experience (0-2 years, 3-5, 6-10, 11+)
Site visit date (site visit 1, 2, or 3)
Document type (district, school, research memo).

With the coding scheme came a coding manual that contained the major codes, coding guidelines, definitions, and the coding format. Those researchers and staff who would undertake the coding of the 508 interviews spent considerable effort on training themselves in the intricacies of the system and the mysteries of the NVivo software.

We transcribed but did not code the interviews from the Round Two site visits. For Round Three, we again transcribed the interviews, and using NVivo, we coded them not by the original coding framework, but by the interview protocol questions themselves (this process affectionately referred to as a “data dump”).

State study interviews

In our response to the Wallace RFP, we proposed to develop a “policy map” for each state based on interviews with key informants in order to develop a stable understanding of the policy dynamics that are related to efforts to change leadership for student achievement. We developed an open-ended interview protocol that was appropriate for an elite population. The main topics covered were: 1) the respondent’s perceptions of the major state-level policy initiatives of importance over the last few years (allowing the respondent to determine the starting year/policy); 2) specific policy initiatives in two arenas: accountability and promoting school leadership; 3) a discussion of the policy initiators and actors, and their stakes and stands on major policy initiatives; and 4) their comments about the way in which groups and individuals work together or separately to exercise influence over educational policy.

We selected interview participants who would, cumulatively, yield a comprehensive set of perspectives on state-level education policy and policymaking. The interviewees included congressional representatives, commissioners of education, chairs of state boards of education, teacher and administrative union leaders, faculty members at schools of education, leaders of foundations related to education, and business leaders engaged in state education initiatives. We sent potential respondents letters of invitation and followed up with telephone calls to schedule telephone interviews.

Senior project staff interviewed from eight to 12 individuals by telephone in each state. Interviews lasted an hour or more, were recorded with the interviewee's permission, and later transcribed. Only one of the interviewees declined to be taped. From the nine states in the achieved sample we had 83 interviews (as well, we had 12 interviews from the two states we lost). We conducted the interviews in 2004 and 2005 with a final interview in January 2006.

Coding state study interviews

The coding scheme we developed for the state interviews was less complex than the scheme for district and school interviews. Again, we wanted a standardized coding system that would classify the interview data in rather broad categories. And again, the coding scheme closely reflected the interview protocol. In major outline, the coding framework contained:

Interview topic	Organizational school improvement Student learning Accountability Enhancement of professional development/ Teacher capacity and leadership Non-specific education policy or history (general)
Context and actions	Goals Current status Motivations for policy Strategies for implementation and enactment Explanatory factors Collaboration Historical context.

There was a second round of state interviews in June, July, and August of 2008. A single staff member conducted two or three interviews per state (including in one of the states that we lost) for a total of 29 interviews. All interviewees were officials in their state's department of education and had not been interviewed in the first round of interviews.

Classroom Observation

Classroom observations were part of the data collection during the district site visits in rounds one and three. The task was to observe instruction in literacy (reading or language arts) and mathematics, determine the kinds and frequencies of particular instructional strategies teachers used, and note classroom conditions. The purposes of the observations were to gain an understanding of the instructional activities in the schools, which should assist us to better place the student achievement outcomes within a context; provide some corroboration for the claims made by the various district and building interviewees about the teaching and learning conditions in the school; and provide a basis for discussion during the teacher interviews that would follow the observations. We developed a structured observation protocol to collect this data.

On most site visit teams, all team members individually observed one or more teachers, as well as conducted interviews. We trained ourselves as observers to reliably document instruction in the lessons we observed based on our modification of Newmann's assessment of authentic instruction.³¹³ We recorded what we saw and heard on an observation form that included two main sections: 1) basic information about the context, details of the lesson, how class time was used, how students were organized for instruction and learning, the kinds of technology used during the lesson, and a description of any positive or negative features in the classroom; and 2) assessments of instruction using four of Newmann's five standards of authentic instruction: higher order thinking, deep knowledge, substantive conversation, and connection to the world beyond the classroom. We completed the classroom observation forms during or soon after the observation period but did not show them to the teachers. Except for the observers' filled out observation protocol, we made no recording of any sort of the classrooms.

In the typical site visit, we observed four or five literacy or math classes per school in classrooms at all grade levels, but we preferred grades 3 or 4, 5, 8, and 10, the typical grades in which students take state-wide AYP examinations. We observed teachers during one instructional period usually lasting from 30 to 55 minutes and conducted the interview with the teacher, lasting about a half hour, as soon as possible after the lesson.

We did not sample or recruit teachers for our observations. Rather, we left the choice and persuasion of teachers to the principals or their assistants who were coordinating arrangements and scheduling for our visit to the schools. Both by e-mail and telephone, we discussed our preferences for numbers, subjects, and grades. In Round One, we returned with 145 classroom observations. For the Round Three observations, we modified our observation protocol somewhat. The major change was the addition of a one-page checklist requiring the observer to check yes or no to 24 items having to do with classroom management and use of instructional strategies. In Round Three, we returned with 167 classroom observations, and a project total of 312 classroom observations.

³¹³ Newmann, F. M., Secada, W. G. & Wehlage, G. G. (1995). *A guide to authentic instruction and assessment: Vision, standards, and scoring*. Madison, WI: Wisconsin Center for Education Research, pp. 86-93.

Appendix B

Rotated Component Matrix Data for Section 1.5

Survey Item	Component	
	1	2
4-1 My school administrator develops and atmosphere of caring and trust.	.857	.161
4-3 My school administrator creates consensus around purposes of our district mission.	.832	.243
4-6 My school administrator is effective in building community support for the school's improvement efforts.	.841	.224
4-7 My school administrator promotes leadership development among teachers.	.839	.279
4-8 My school administrator models a high level of professional practice.	.869	.213
4-9 My school administrator ensures wide participation in decisions about school improvement.	.818	.251
4-10 My school administrator clearly defines standards for instructional practices.	.768	.351
4-24 When teachers are struggling, our principal provides support for them.	.741	.259
4-25 Our principal ensures that all students get high quality teachers.	.705	.247
4-27 In general, I believe my principal's motives and intentions are good.	.756	.112
4-13 How often in this school year has your school administrator discussed instructional issues with you?	.253	.761
4-14 How often in this school year has your school administrator encouraged collaborative work among staff?	.288	.699
4-15 How often in this school year has your school administrator provided or located resources to help staff improve their teaching?	.352	.717
4-16 How often in this school year has your school administrator observed your classroom instruction?	.103	.671
4-17 How often in this school year has your school administrator encouraged data use in planning for individual student needs?	.155	.772
4-18 How often in this school year has your school administrator attended teacher planning meetings?	.183	.691
4-21 How often in this school year has your school administrator given you specific ideas for how to improve your instruction?	.159	.640

Appendix C

Data from Section 1.6

Table C1.6.1

One-Way Analyses of Variance for Leadership Variables by Diversity

	ANOVA		Diversity Level Pairwise Contrasts [†]		
	<i>F</i>	<i>p</i>	Low (A)	Medium (B)	High (C)
1 Parent Teacher Shared Leadership	10.80	<.001		B > C	A > C
2 Principal as Instructional Leader	.23	.797			
3 Shared Leadership Within the School	11.65	<.001		B > C	A > C
4 Collective Responsibility	4.97	.007	A > B		A > C
5 Shared Norms	40.20	<.001	A > B	B > C	A > C
6 Teachers Perceptions of Parent Influence	38.75	<.001	A > B	B > C	A > C
7 Principal as Trusted Colleague	11.58	<.001	A > B	B > C	A > C
8 Focused Instruction	44.21	<.001	A > B	B > C	A > C
9 Teacher ratings of school climate	9.69	<.001	A > B (<i>p</i> =.06)	B > C	A > C
10 Teacher ratings of school openness to parents	4.32	.015	A > B (<i>p</i> =.06)		A > C
11 Teacher ratings of district support	3.14	.045		B > C	

Source: 1 – 8 Teacher Survey Round One; 9 – 11 Teacher Survey Round Two

[†]For the planned pairwise contrasts among the means, the comparisons shown represent two means significantly different from each other at $p < .05$, *t*-test two-tailed.

Table C1.6.2
Summary Table of Significant Main Effects for Principal Leadership Variables for Each
Context Variable for Surveyed Principals Second Round*

Leadership Variables	Context Variables					
	Poverty	Diversity	District Size	Urbanicity	Building Level	Building Size
Principal self-rating on shared-leadership skills						
Principal self-rating on improvement-planning focus		X				
Principal rating of district school-improvement focus		X				
Principal rating of district shared-leadership skills			X			
District policies to support organizational learning			X			
District focus on data-based decision making		X		X		

Source: Principal Survey Round Two.

* X indicates a significant main effect at $p < .05$ for that leadership variable (row) on that context variable (column).

Table C1.6.3

One-Way Analyses of Variance for Leadership Variables by Diversity

	ANOVA		Diversity Level Pairwise Contrasts [†]		
	<i>F</i>	<i>p</i>	Low (A)	Medium (B)	High (C)
Principal self-rating on shared-leadership skills	1.60	.205			
Principal self-rating on improvement-planning focus	5.25	.006	B > A		C > A
Principal rating of district school-improvement focus	3.42	.035	B > A		
Principal rating of district shared-leadership skills	.78	.461			
District policies to support organizational learning	1.27	.283			
District focus on data-based decision making	3.88	.022	B > A		

Source: Principal Survey Round Two.

[†]For the planned pairwise contrasts among the means, the comparisons shown represent two means significantly different from each other at $p < .05$, *t*-test two-tailed.

Table C1.6.4

One-Way Analyses of Variance for Leadership Variables by District Size

	ANOVA		District Size Pairwise Contrasts [†]		
	<i>F</i>	<i>p</i>	Small (A)	Medium (B)	Large (C)
Principal self-rating on shared-leadership skills	2.69	.070			
Principal self-rating on improvement-planning focus	.34	.713			
Principal rating of district school-improvement focus	2.36	.097			
Principal rating of district shared-leadership skills	9.07	<.001			A > C
District policies to support organizational learning	8.04	<.001	A > B		A > C
District focus on data-based decision making	.45	.641			

Source: Principal Survey Round Two

[†]For the planned pairwise contrasts among the means, the comparisons shown represent two means significantly different from each other at $p < .05$, *t*-test two-tailed.

Table C1.6.5
One-Way Analyses of Variance for Leadership Variables by Urbanicity

	ANOVA		Urbanicity Level Pairwise Contrasts [†]			
	<i>F</i>	<i>p</i>	Rural (A)	Large town (B)	Suburban (C)	Urban (D)
1 Parent-teacher shared leadership	1.99	.113				
2 Principal as instructional leader	3.94	.008			C > D	
3 Shared leadership within the school	3.93	.008				D > A
4 Collective responsibility	1.63	.179				
5 Shared norms	34.29	<.001	A > B	C > B	C > D	A > D
6 Teachers perceptions of parent influence	2.82	.037			C > B (<i>p</i> = .057)	
7 Principal as trusted colleague	3.08	.026			C > D	
8 Focused instruction	25.63	<.001	A > B	C > B	C > D	A > D
9 Teacher ratings of school climate	2.92	.035			A > C	
10 Teacher ratings of school openness to parents	1.12	.342				
11 Teacher ratings of district support	5.55	.001	A > B	D > B	A > C	

Source: 1 – 8 Teacher Survey Round One; 9 – 11 Teacher Survey Round Two.

[†]For the planned pairwise contrasts among the means, the comparisons shown represent two means significantly different from each other at *p* < .05, *t*-test two-tailed.

Table C1.6.6
One-Way Analyses of Variance for Leadership Variables by School Size

	ANOVA		School Size Pairwise Contrasts [†]				
	<i>F</i>	<i>p</i>	School Size in Quintiles				
			1 st (A)	2 nd (B)	3 rd (C)	4 th (D)	5 th (E)
1 Parent-teacher shared leadership	19.87	<.001	A > E	B > E	C > E	D > E	
2 Principal as instructional leader	39.95	<.001	A > E	B > E	C > E	D > E	
3 Shared leadership within the school	3.97	.003	A > B A > D				
4 Collective responsibility	32.74	<.001	A > D A > E	B > D B > E	C > D C > E	D > E	
5 Shared norms	43.19	<.001	A > E	B > E	C > D C > E	D > E	
6 Teachers perceptions of parent influence	2.73	.028				(D > E <i>p</i> =.08)	
7 Principal as trusted colleague	30.15	<.001	A > E	B > E	(C > D <i>p</i> =.06) C > E	D > E	
8 Focused instruction	4.16	.002			(C > E <i>p</i> =.06)	D > E	
9 Teacher ratings of school climate	17.61	<.001	A > E	B > E	C > E	D > E	
10 Teacher ratings of school openness to parents	13.29	<.001	A > E	B > E	C > E	D > E	
11 Teacher ratings of district support	5.37	<.001			C > E	D > E	

Source: 1 – 8 Teacher Survey Round One; 9 – 11 Teacher Survey Round Two.

[†]For these post hoc contrasts among the means, the comparisons shown represent two means significantly different from each other at *p* < .05, *Bonferroni t*-test two-tailed.

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