The *Practice* of Leading and Managing: The Distribution of

Responsibility for Leadership and Management in the Schoolhouse

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Draft paper prepared for presentation at the Annual Meeting of the American Educational Research Association, San Francisco, April 7 – 11, 2006. Work on this paper was supported by the National Institute for School Leadership Evaluation Study funded by the Institute for Education Sciences (Grant # R305E040085) and the Distributed Leadership Studies funded by the National Science Foundation (RETA Grant # EHR – 0412510).

Abstract

In this paper, we take a distributed perspective to examine how the work of leading and managing the schoolhouse is distributed across people. Beginning with the leader-plus aspect of a distributed perspective, the paper examines which school actors take on leadership and management work. Comparing and contrasting different types of leadership/management activities, we argue that individuals who take responsibility for the work depends on the activity-type. By examining <u>how</u> leadership is distributed, we show that co-performance of leading and managing activities are not unusual in schools.

Introduction

The policy and professional environments of schools have shifted considerably in the last few decades in response to the increasing concerns about student achievement. The standards movement and high stakes accountability have all contributed to foregrounding matters of teaching and learning in debates about schools and their improvement. The press for school principals to lead and manage improvements in instruction has increased from all sectors – policy, professional, and public. In addition to the expanding responsibilities of their daily job, school principals face many new challenges in managing and leading instruction with inadequate preparation. Further, scholarship in educational administration has little to report on the actual work of managing and leading instruction.

In this paper, we take a distributed perspective to examine how school principals tackle the challenge of managing and leading their schools, with special attention to the management and leadership of instruction and curriculum. Of particular note, we examine the distribution of leadership across people predominantly, though not exclusively, from the perspective of the school principal's practice. This is important in that some commentators construe a distributed perspective on leadership as undermining the school principal's role in managing and leading the schoolhouse. We disagree with this view. As an analytical framework for studying the practice of leading and managing schools, a distributed perspective is not intended to negate or undermine the role of the school principal.

After describing the studies upon which this paper is based, we briefly describe the core elements of a distributed perspective. Turning our attention to findings, we begin with the leader-plus aspect of a distributed perspective examining which school actors perform leadership and management work. Comparing and contrasting different types of leadership/management activities, we argue that the individual taking responsibility for the work depends on the activity-type. Examining how leadership is distributed, we show that the co-performance of leading and managing activities, as measured from the perspective of the school principal's practice, is commonplace in schools.

Research Studies and Methodologies

We draw on data from two studies – The Distributed Leadership Studies and an evaluation of the National Institute for School Leadership (NISL). In this section we briefly describe the studies.

Distributed Leadership Studies

The Distributed Leadership Studies involves a series of studies funded by the National Science Foundation and the Spencer Foundation. One of the studies involved a five-year longitudinal study of elementary school leadership involving 12 Chicago elementary schools. A more recent study, still underway, involved a study of school leadership in 20 K-8 schools with a particular focus on leadership for instruction in the middle grades.

Data Collection and Research Sites. We used a theoretical sampling strategy (Glaser, 1978; Glaser & Strauss, 1970). The schools include grades K-5 and K-8 and are located in the Chicago Metro area. As a mixed methods study we used observations, structured and semi-structured interviews, videotaping of leadership practice, social network surveys, and leader logs. For a sub-sample of schools, researchers spent the equivalent of 3-4 days per week per school over a 10-week period visiting schools ranging from one to three years. Leadership events observed in these schools included grade level meetings, faculty meetings, school improvement planning meetings, professional development workshops, and observing various teaching practices. In addition, we observed a number of other events where leaders discussed subject matter including homeroom conversations between teachers, lunchroom conversations, grade level meetings, and subject specific workshops and meetings.

Study of School Leadership Professional Development

The second study is a mixed method longitudinal study funded by the Institute for Education Sciences, designed to evaluate a leadership development program (the National Institute for School Leadership (NISL)) in a mid-sized urban school district in the Southeastern United States that we will call Cloverville.¹ This evaluation study involves a randomized, delayed-treatment design where half of Cloverville's school

¹ Cloverville is a pseudonym as are all other names used in the paper to refer to participants, their schools and their town.

principals were assigned to participate in NISL in the first year of the study with the other half assigned to receive the treatment at a later time.

Data Collection and Instruments. Baseline data was collected from school principals and 2400 school personnel including teachers in 52 schools – elementary, middle, high, and special schools. As a mixed methods study, data collection methods included experience sampling method (ESM) school principal log, end of day (EOD) principal log, a principal questionnaire (PQ), a school staff questionnaire (SSQ), observations of school principals, in-depth interviews with school principals, and school principal's responses to open-ended scenarios. For the purpose of this paper we are using baseline data collected in Spring 2005 from both the ESM log and the SSQ.

We analyzed data from two instruments used in the study for this paper – experience sampling method (ESM) log and school staff questionnaire (SSQ). The first dataset contained responses from principals that were collected using experience sampling methodology (ESM). ESM is a technique in which principals are beeped at random intervals throughout the school day alerting them to fill out a brief questionnaire programmed on a handheld computer (PDA). Among other things, principals reported on where they were, what they were working on, whether they were leading or co-leading the activity, and with whom they were co-leading – administrators, teacher leader, specialists, teachers, etc. If they were not leading the activity, school principals reported on who was leading. Because the principals are prompted to submit this information by random beeps, we can get an overall estimate of the percentage of time they spend leading alone and leading with co-leaders when we look at all of the data points across the six-day sampling period. The ESM log captures behavior as it occurs within a natural setting.

In this study the principals were beeped fifteen times a day for six consecutive days during Spring 2005. Forty-two participating principals provided multiple days of data. For these 42 school principals, the overall response rate to the beeps spread out across the six-day sampling period was 66%.²

We also analyzed data collected using a questionnaire that was mailed to staff members in all schools. The overall response rate for the SSQ was 87%. In this survey (SSQ), school staff indicated the specific leadership roles they fulfill in the school as well as the percentage of their time that is assigned to this role. These data provide us with an estimate of the number of formally designated leaders in each school along with an estimate of how much time they spend on management and leadership-specific responsibilities.

<u>Validity</u>. We performed several analyses to check on validity of our ESM measures. We started by comparing information obtained from ESM to information obtained from the EOD log. This step involved the validation of responses about types of activities. Specifically, we found a positive and significant association between principals' ESM and end of day log responses with respect to daily activities such as administrative related tasks. We performed a weighted regression to calculate the correlation coefficient for percentage of time spent on administrative and instruction activities between ESM and EOD (see Table 1). The percentages for each principal were

² Response rates were calculated for principals that participated for a majority (i.e., 4 days) of the sampling period

calculated for the morning and afternoon hours of each day. The findings in this table show that the correlations among the two data sources were statistically significant even after controlling for time of day, day, and principal effects as well as any effect due to completing the EOD log one or more days after the study day (Konstantopoulos, Spillane, and Lewis, in preparation).

Analytical Framework

Two analytical frameworks inform the work reported in this paper. First, we take a distributed perspective on school leadership and management. Second, we draw a distinction between the school organization as designed and the organization as lived. We will discuss each framework in this section.

<u>A Distributed Perspective on Leadership and Management.</u> The distributed perspective offers an analytical framework for thinking about and analyzing school leadership and management (Spillane, 2006). It involves two aspects: the leader-plus aspect and the practice aspect.

The leader-plus aspect recognizes that leading and managing schools can involve multiple individuals, not just those at the top of the organization or those with formal leadership designations. School leadership and management do not reside exclusively in the principal's office. From a distributed perspective, school leadership and management potentially involve more than the work of individuals in formal leadership positions – principal, assistant principal, and specialists. Specifically, individuals who are not formally designated leaders also provide leadership and management in the distributed leadership paradigm.

The practice aspect of the distributed framework foregrounds the practice of leadership, but frames it in a particular way: It sees leadership *practice* as a product of the interactions of school *leaders*, *followers*, and their *situations*. Practice takes shape at the intersection of these three elements. This latter point is especially important and one that is frequently glossed over in discussions about distributed leadership. Rather than viewing leadership practice through a narrow psychological lens where it is seen as the product of a leader's knowledge and skill, the distributed perspective defines leadership practice in regards to the interactions of people and their situations. These interactions are important to understanding leadership practice. The leadership practice aspect then moves the focus from aggregating the actions of individual leaders to the interactions among leaders, followers, and their situations (Spillane, 2006). We will first focus on the leader-plus aspect in this paper and then turn our attention to the practice aspects by exploring situations that involve the co-performance of leadership and management activities otherwise known as co-leading.

The Organization as Designed and the Organization as Lived. For analytical purposes, we can think about schools as organizations on two levels – the designed organization and the lived organization. The organization as designed refers to the formal structure as represented in formally designated positions (e.g., principal, assistant principal, mentor teacher, literacy specialist), organizational routines (faculty meetings, grade level meetings), committee structures (e.g., school leadership team, literacy committee), and so on.

The organization as lived refers to the day-to-day life of the organization – what happens in daily practice. While these two aspects of the organization are related, they

are not mirror images of one another – the designed organization is not always a good guide to the lived organization. For example, in our work in Chicago we find that some organizational routines that figure prominently in formal documents or even in school leaders' accounts of how the school works, infrequently happen in practice despite the best of intentions of the school staff.

Both the designed organization and the lived organization are critical in understanding the practice of leading and managing schools. While the lived organization gets up close with the practice of leading and managing, the designed organization is also critical because aspects of the designed organization, such as organizational routines and formally designated positions, frame leadership practice and shape it in particular ways.

The Practice of Leading and Managing: The Distribution of Responsibility and Performance Across People

Keeping the designed organization/lived organization distinction in mind, in this section we will take up three research questions motivated by the distributed framework:

- Who takes responsibility for leadership and management work in schools?
- To what extent does the practice of leading and managing involve coperformance; that is, where two or more leaders co-lead an activity?
- What types of leading and managing work are distributed across people and involve co-performance?

In responding to these questions, we develop and support three assertions about the practice of leading and managing schools. First, we show that the work of leading and

managing schools involves multiple individuals – some with formally designated leadership positions, others without such positions. Second, we show that co-performance of leading and managing activities, as measured from the perspective of the school principal's practice, is relatively commonplace in schools (though it varies from one school to the next). Third, we show that the distribution of responsibility for leadership and management work differs by the type of activity. We take up these assertions below using data from the studies described earlier in the paper.

The Distribution of Responsibility for Leading and Managing

Introduction. Various studies have shown that school administrators do not have a monopoly on leadership and management work (Camburn, Rowan, and Taylor, 2004; Heller & Firestone, 1995). Focusing on the designed organization as represented in formally designated leadership positions, research suggests that in addition to school principals and assistant principals, other formally designated leaders who take responsibility for leadership and management work include subject area specialists, mentor teachers, and other professional staff (i.e., family outreach personnel). A recent study of more than one hundred U.S. elementary schools estimated that the responsibility for leadership and management functions was typically distributed across three to seven formally designated leadership positions per elementary school (Camburn, Rowan, and Taylor, 2004).

By casting nets that go beyond the designed organization and focusing on the lived organization, some studies show that individuals with no formal leadership position – mostly classroom teachers - also took responsibility for school leadership and

management (Heller and Firestone, 1995; Spillane, Diamond, and Jita, 2003; Spillane
2006). Teachers contributed to an array of leadership functions, including sustaining an
instructional vision and informally monitoring program implementation (Firestone,
1989). Work carried out as part of the Distributed Leadership Studies in Chicago also
shows that responsibility for enacting key leadership and management routines in schools
involved both formally designated leaders and informal leaders.

Building on these earlier findings we examined the extent to which responsibility for leadership work was distributed in Cloverville, a mid-sized urban school district in the Southeastern U.S., as part of our evaluation of the NISL program. Our goal here was to test out some working hypotheses from earlier theory building work. Below we consider how responsibility for leadership and management work was distributed in Cloverville's schools. First we examine the distribution of responsibility from the perspective of the designed organization as represented in the number of school staff having formally designated leadership positions. Second, we examine the distribution from the perspective of the lived organization. Specifically, we examine school principals' practice over a six- day period during two weeks in Spring 2005.

The Designed Organization: Formal Leadership Positions. An analysis of the data from the school staff questionnaire (SSQ) suggests that schools in Cloverville have an array of formally designated leaders. Overall, 30% (622 of 2,070 respondents) across the schools in the district reported holding a formally designated leadership position. Formally designated leadership positions included assistant principal, mentor teacher, teacher consultant, school reform coach, and so on. On average, schools have approximately 12 formally designated leaders, where some are full-time in a single

position but a majority are part-time. In addition to the school principal, the average number of full-time leaders per school was 4.6, approximately 12% of the professional staff in a school.

The average number of people assigned to a particular leadership position differed depending on the position. For example, on average there were more mentor teachers positions per school (6.1) than reading coordinator positions (2.1) or mathematics coordinator positions (1.6) (see Table 3). When focusing only on individuals reporting full-time assignments in a leadership position, these numbers change. As we might expect, schools in Cloverville were more likely to have someone full-time in the assistant principal position than in any other formally designated position. Table 3 provides additional details.

[Insert Table 3 Here]

With the exception of the assistant principal and math coordinator positions, the median percentage of time spent on all other formally designated leadership positions across schools is roughly 40% (see Figure 1). The percentage of time spent in the mathematics coordinator position, for example, was on average much less than the percentage of time spent in the reading coordinator position or the mentor/teacher position (See Figure 1). There was considerable variability between schools on the average amount of time devoted by staff to these positions and the between-school variation was greater for some formally designated positions than others. For example, there was less variability between schools in the average percentage of time reported in the mathematics coordinator position or school reform position compared with the assistant principal or reading coordinator position (See Figure 1).

[Insert Figure 1 Here]

Overall, these data confirm earlier research that shows responsibility for school leadership and management is distributed across multiple people holding different formally designated leadership positions. In addition to the school principal, other fulltime (on average 4.6 per school) and part-time leaders report responsibility for managing and leading Cloverville's schools.

Relying exclusively on school staff reports to understand their formal leadership designations, however, has limitations. First, individuals may hold formally designated leadership positions but not engage in the actual work of leading and managing the school. Hence, counts of those holding formally designated leadership positions may inflate the number of individuals who demonstrate leadership and management in Cloverville's schools. Second, focusing only on formally designated leaders fails to tap into informal leaders in schools, especially classroom teachers who do not hold leadership positions. Hence, we turn our attention to the actual practice of leading and managing in Cloverville's schools.

The Lived Organization: The School Principal's Practice. Analyzing data from the ESM log completed by 42 of Cloverville's school principals over six-days in Spring 2006, we get a sense of how responsibility for leadership and management work is distributed across people in the day-to-day life of the school. It is important to keep in mind that these data refer to the self-reported practice of the school principal. Considering that on average Cloverville's schools have 4.6 full-time leaders in addition to the school principal, this sample provides only one slice of the practice of leading and managing. Still, the principal as the school's CEO is an important slice and by

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examining how school principals spend their time we can get a sense of how the work of leading and managing is distributed across people.

On average, Cloverville's school principals reported that they were not leading for 31% of the activities they were participating in when beeped at random (see Table 4). In other words, for almost one-third of the school principal's workday, they were participating in an activity where someone else was the leader. As we will discuss below, this differed depending on the activity with school principals more likely to be leading administration type activities and less likely to be leading instruction and curriculum related activities (See Table 4). Hence, even when viewed exclusively from the school principal's practice, other individuals emerge as important actors in the work of managing and leading the school.

[Insert Table 4 Here]

When these school principals reported not leading the activity, the individuals they identified as leaders included classroom teachers (with no formal leadership designation), other professional staff, subject area specialists, teacher leaders, and assistant principals, among others (See Table 5). Our analysis of how school principals in Cloverville spend their day suggests that the actual work of leading and managing the school involves multiple others. Even more striking is the finding that individuals with no formal leadership designation tend to lead over one quarter of all the activities that school principals reported participating in but not leading. In other words classroom teachers with no formal leadership designations lead over 25% of the activities that Cloverville's principals were involved in over a six-day period.

[Insert Table 5 Here]

As we might expect, there was considerable variation between schools in Cloverville in the proportion of time the principal was leading the activity (see Figure 2). Excluding outliers, some principals lead 44% of the activities they participated in while others lead 90% of the activities. In other words, while some principals reported that someone else was leading over 50% of the activities they participated in over the six-day period, others reported that someone else was leading only 10% of the time. Given that our data is entirely based on school principals' reports of how they spend their time, it is difficult to gauge if this variation reflects differences in the extent to which others are engaged in the actual practice of leading and managing the school or if they are distracted by something else. It could be, for example, that some school principals are less likely to participate in activities where other staff members are leading or managing. Regardless, these data suggest that even when the practice of leading and managing the schools is analyzed exclusively from the perspective of the school principal's practice other leaders are important players.

[Insert Figure 2 Here]

The Co-Performance of Leadership and Management Work

Introduction. From a distributed perspective, adding those who carry out leadership and management work is essential, but not sufficient. Figuring out the arrangements for distributing responsibility for leadership and management is also important. Based on our work in the Distributed Leadership Studies, we have identified three arrangements by which the work of leadership and management is distributed across people:

- Division of labor
- Co-performance
- Parallel performance (Spillane, 2006)

Division of labor refers to situations where a single leadership position (e.g., assistant principal) has responsibility for a particular leadership/management function (e.g., maintaining an orderly school building) or routine. Co-performance refers to situations where two or more individuals perform a leadership/management function or routine in a collaborated fashion. Parallel performance refers to situations where people perform the same functions or routines but without any coordination among them.

Through the analysis of situations involving co-performance of leadership and management activities, we have identified three types of leadership distribution – collaborated, collective, and coordinated (Spillane, 2006; Spillane, Diamond, and Jita, 2003). *Collaborated distribution* characterizes practice that is stretched over the work of two or more leaders who work together in place and time to co-perform the same leadership routine. *Collective distribution* characterizes practice that is stretched over the work of two or more leaders who co-perform a leadership routine by working separately but interdependently. *Coordinated distribution* refers to situations where a leadership routine involves activities that have to be performed in a particular sequence.

<u>Co-Performance of Leading and Managing: Collaborated distribution</u>. Using data from our evaluation of the NISL program in Cloverville, we examine situations where the school principal co-performed with one (or more) individual, otherwise known as leadership and management activities involving collaborated distribution. Using the school principals' ESM log data, we can analyze those situations where school principals reported co-performing a leadership or management task with one (or more) individual in the same place and at the same time. (We draw a distinction here between individuals who were present and co-leading with the school principal and individuals who were present but not co-leading the activity. School principals reported on both types of individuals). Again, it is important to remember that our data is based entirely on school principals' self-reports of their practice. The inclusion of log data from other formally designated leaders, even informal leaders, would undoubtedly complicate the picture.

Even when school principals in Cloverville reported leading the activity they were participating in, they were not always performing solo. Overall, school principals reported co-leading almost half (48%) of the activities they were leading. Principals reported co-leading with just one other individual 63% of the time, while they reported co-leading with two or more individuals 37% of the time. When school principals in Cloverville reported they were co-leading an activity, they identified classroom teachers most frequently as their co-leaders (see Table 6).³ Specifically, school principals' identified classroom teachers among their co-leaders for almost 30% of the activities involving co-performance. Indeed, actors with no formal leadership designations including students, parents, and classroom teachers figure rather prominently in coperforming leadership and management activities with the school principal. For over 50% of all co-leading situations, school principals identified at least one of the following as their co-performers - students, parents, and/or teachers. Again, this analysis underscores the theory that actors with no formal leadership designations are important in

³ School principals could identify more than one type of co-leader for any one activity depending on who was co-performing with them. Hence, the numbers in Table 6 add up to more than 100%.

attempting to understand how leadership is distributed over people in schools. Others identified by school principals as co-performing with them included other professional staff, teacher leaders, assistant principals, students and parents (See Table 6).

Schools Differ in the Prevalence of Situations involving Collaborated Distribution. As one might expect, the prevalence of the co-performance of leadership and management activities differed by school. To begin with, the solo performance of leadership and management activities by the school principal were more prevalent in some schools than others. Some principals reported co-performing with at least one other actor over 90% of the time, while others reported co-performing fewer than 20% of these activities (see Figure 2). Hence, overall figures for the Cloverville school principals hide considerable variability between schools. There was also considerable variability between Cloverville principals with respect to whom they reported as co-performers. We will examine this in the next section when we consider how the distribution of responsibility for leadership and management work differs by activity-type. Even when Cloverville's principals reported leading the activity they were participating in, they frequently reported practicing with someone else.

Activity Type and the Distribution of Responsibility for Leading and Managing

Introduction. While leadership is distributed in schools, how it is distributed across people depends on the activity. Prior work suggests that the distribution of responsibility for leading and managing the school differs depending on the leadership function or routine (Camburn, Rowan, & Taylor, <u>200?</u>; Heller & Firestone, 1995; Spillane, 2006) and the subject matter (Spillane, 2005). Our analyses of data generated in

the Distributed Leadership Studies suggest that over whom leadership and management is distributed in schools depends on the type of leadership or management activity (Spillane, 2006). The performance of some leadership and management routines (e.g., monitoring classroom instruction) tends to be distributed across fewer actors than other routines (e.g., providing professional development on language arts instruction).

Activity Type and the Distribution of Responsibility. A second take on the distribution of responsibility for leadership and management work in the day-to-day life of the school can be obtained by examining those activities the school principal reported as co-leading. The manner in which leadership and management work is distributed across people differs depending on the particular activity. First, the extent to which school principals co-performed an activity with someone else versus performing the activity on their own depended on the type of activity. Second, those individuals who co-performed with the principal varied depending on the type of activity. We address both of these issues in this section.

In Cloverville, the distribution of responsibility for leading and managing the school differed depending on the type of activity. Overall Cloverville school principals reported leading over three-quarters (77.8%) of administration-type activities they were participating in but just over half (55.2%) of instruction and curriculum-type activities. For those leadership and management activities that school principals participated in, they were more likely to report leading those related to administration than leading those related to instruction and curriculum (see Table 4).

Differences between instruction and curriculum-related activities and administration-related activities are even more pronounced when we look at the difference between school variance in the distribution of responsibility for leading and managing. There is more variability between schools in school principals' reports of both leading and leading alone for instruction and curriculum related activities than there is for administration related activities. For example, while principals reported leading anywhere from 50% to 100% of administration-related activities, they reported leading from 0 to 100% of instruction and curriculum-related activities depending on the school (Figure 3). The between-school variance for instruction and curriculum-related activities was double that for administration-related activities. This suggests more variation between schools in whether school principal were leading for activities tied to instruction and curriculum than for activities tied to administration.

Variability between schools containing the actors with whom school principals co-performed leadership and management activities also differed depending on activity types. There was substantial variation between principals in the percentage of time they spent co-leading with teachers (either teacher leaders or classroom teachers) in activities related to instruction and curriculum and less variability for administration-related activities (see Figure 4). For example, while principals reported co-performing instruction and curriculum-related activities with teacher leaders with a range from zero to 100%, their reports of co-performing administration-related activities with teacher leaders ranged from zero to just over 30%. With the exception of the assistant principal position, there was much variability between schools and individuals who co-performed for instruction and curriculum activities than for administration activities.

Within the broad categories of administration and instruction and curriculum there was also considerable variation. For instruction and curriculum activities, for example,

school principals reported leading 86% of the "review student work" activities they participated in but only leading 47% of the "plan curricula" activities (See Table 7). School principals were much more likely to be co-performing with someone else during activities such as "discuss teaching/curricula" and "model a lesson" compared with activities such as "reviewing lesson plans" or "reviewing student work." This is the subject of a future paper.

The distribution of responsibility for instruction and curriculum-related activities also differed depending on the school subject. School principals were more likely to be leading instruction and curriculum activities that had to do with science (73%) and least likely to be leading those related to mathematics (39%) (See Table 8). Moreover, instruction and curriculum-related activities about Writing or Social Studies were more likely to involve the principal leading alone – and therefore less likely to involve the principal co-leading with someone else – than activities related to reading or mathematics. Again, this is a topic for a future paper.

The evidence from Cloverville suggests that the way in which leadership is distributed across people and the range of variation between schools depends on the particular type of leadership and management activity in question. Leading and managing a school involves diverse administration-related activities such as budgeting, student discipline, and building maintenance, as well as instruction and curriculumrelated activities including instruction monitoring and teacher development. The particular leadership and management activity is a key variable in accounting for the way in which work is distributed to individuals. This is further supported by the prevalence of co-performance as a distribution method.

Discussion and Conclusion

Taking a distributed perspective, we examined how the work of leading and managing the schoolhouse is distributed across people. Extending our earlier theory building work undertaken as part of the Distributed Leadership Study, we analyzed data from Cloverville, a mid-sized Southeastern school district, to explore whether and how leadership was distributed across people in schools. Our analyses examined both the designed organization as reflected in formally designated leadership positions, as well as on the lived organization as measured through the work practices of school principals.

Overall, our analyses support a number of hypotheses generated in prior research. The work of managing and leading the schoolhouse is distributed over multiple actors; some occupying formally designated leadership positions, others with other informal positions. Looking at the designed organization, we found that Cloverville schools have approximately 12 formally designated leaders, some who are full-time, but a majority of whom are part-time with an average of 4.6 full-time leaders per school in addition to the school principal. Looking at the lived organization as captured by a log of the school principal's day, we found that the work of leading and managing schools was also distributed over actors with no formal leadership positions. Classroom teachers (with no formal leadership positions) figure prominently in the work of leading and managing Cloverville schools. Other actors with no formal leadership positions, such as students, also figure (though less prominently). To understand how leading and managing the school is distributed across people it is critical to focus on the lived organization, not just the designed organization. Examining school principals' practice more closely and looking at situations where school principals co-performed or co-lead an activity with one or more others – situations involving collaborated distribution - we showed that co-performance was common. Overall, school principals co-performed almost half (48%) of the activities they were leading. In other words, school principals in Cloverville reported that they were co-performing or co-leading 38% of all work related activities over a six-day period.

The extent to which the work of leading and managing the schoolhouse was distributed across two or more actors, however, differed depending on the type of leadership and management activity (e.g., administration-related activities versus instruction and curriculum-related activities). While school principals reported leading over three-quarters of all administration type activities they participated in, they reported leading just over half of the instruction and curriculum activities. Other leaders were more prominent in instruction and curriculum-related activities in which the principals were engaged. Overall co-performance was roughly the same for administration-type activities as it was for instructional and curriculum-related activities (35% and 30%, respectively). Actors with formal leadership designations as well as actors with no formal leadership designations take responsibility for school leadership and management.

The extent to which the work of leading and managing the schoolhouse was distributed across people also differed depending on the school. There was considerable between school variation in both, to the extent to which others lead the activities that principals were participating in and to the extent to which principals were co-performing activities that they were leading. In summary, the distribution of responsibility for leading and managing greatly differs from one school to the next. Our preliminary analysis suggests that the work of leading and managing the schoolhouse is indeed distributed, not only involving multiple formally designated leaders and informal leaders, but also demonstrated by the prevalence of the co-performance of work.

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Tables

·	Administration		Instruction & Curric	
Measure	Coef	\mathbb{R}^2	Coef	\mathbb{R}^2
Model 1: Bivariate correlation	.356	.126	.435	.189
Model 2: Model 1 + day effects	.354	.167	.440	.201
Model 3: Model 2 + time effects	.354	.167	.438	.207
Model 4: Model 3 + day/time interaction effects	.372	.183	.447	.221
Model 5: Model 4 + EOD response delayeffects	.369	.187	.443	.223

Table 1. Weighted Regression (Number of ESM Responses)

	Percent		
Measures	Agreement	Association	P-Value
School-Related Work	100%	0.71	0.000
Location	91%	0.88	0.000
Type of Activity			
Administration	83%	0.90	0.000
Instruction and Curriculum	77%	0.85	0.001
Leading	94%	0.66	0.000
Working Alone	73%	0.30	0.163
Classroom Teachers	86%	0.47	0.031
Assistant Principal	95%	0.58	0.001
Subject area Specialist	95%	0.57	0.059
Other Professional Staff	82%	0.26	0.256
Non-teaching Staff	82%	0.41	0.053
District Staff	91%	0.57	0.000
Audience			
No one	94%	0.30	0.149
Students	86%	0.61	0.000
Classroom Teachers	85%	0.54	0.000
Assistant Principal	94%	0.57	0.000
Subject area Specialist	96%	0.61	0.000
Other Professional Staff	96%	0.61	0.000
Non-teaching Staff	98%	0.63	0.002
District Staff	98%	0.57	0.038
Subject	94%	0.90	0.000
How is Activity Done?	87%	0.83	0.000

Table 2. Percent Agreement between ESM and Shadower Data

Role	#	Avg # per school	Full-Time	Avg # per school	Avg % of Time
Mentor Teacher	317	6.1	32	0.6	37.9%
Other Subject Teacher	213	4.1	32	0.6	43.5%
Consultant School Reform	201	3.9	16	0.3	35.3%
Coach Special Prog	171	3.3	16	0.3	33.6%
Coord School	164	3.2	26	0.5	44.3%
Improvement	160	3.1	16	0.3	39.7%
Other	120	2.3	23	0.4	41.6%
Assistant Principal Reading	113	2.2	51	1.0	60.6%
Coordinator	108	2.1	18	0.3	36.3%
Math Coordinator	81	1.6	7	0.1	30.4%

Table 3: School Staff with Formally Designated Leadership Positions

	%	% Leading
Activity	Leading	Alone
Administration	77.8%	55.2%
Fostering Relationships	65.9%	38.1%
Instruction & Curriculum	55.2%	45.5%
Professional Growth	23.3%	46.4%

Table 4. Principal Time Leading an Activity and Leading Alone

Table 5. Who Lead Activities when the School Principal was not Leading.

Leader	%
Classroom Teacher	26.2%
Other Professional Staff	25.4%
Subject Area Specialist	18.8%
Teacher Leader	14.6%
Other Professional Staff	13.4%
Assistant Principal	13.3%
Non-Teaching Staff	10.2%
Not Specified	8.9%
District Staff	5.2%
Student	4.8%
Parent	3.4%
Community Member	1.5%

Co-Leader	%
Classroom Teacher	29.3%
Other Professional Staff	24.0%
Teacher Leader	23.8%
Assistant Principal	21.3%
Non-Teaching Staff	16.0%
Student	15.7%
Subject Area Specialist	10.4%
Parent	7.2%
Other	7.0%
District Staff	3.8%
Community Members	2.3%

Table 6: The School Principal's Co-Leaders

Table 7. Percentage of Time Leading and Leading Alone by Curriculum and

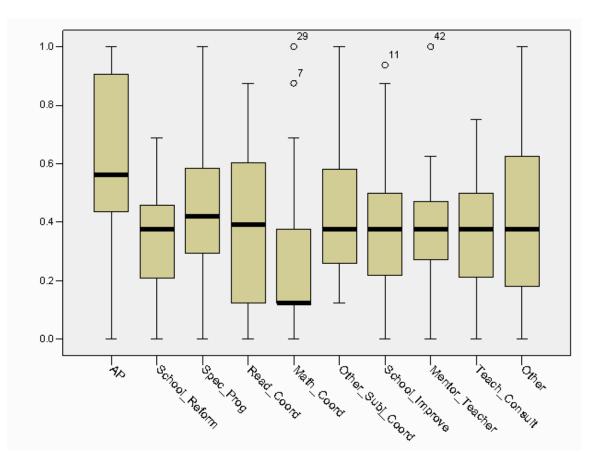
Instruction Task

INSTRUCTION & CURRICULUM				
	%	% Leading		
Task	Leading	Alone		
Review Student Work	85.7%	66.7%		
Provide Student Instruction	76.2%	6.3%		
Review Data	75.8%	56.0%		
Review Lesson Plans	71.4%	80.0%		
Review Instructional Materials	69.6%	50.0%		
Model a Lesson	69.2%	22.2%		
Standardized Testing	68.4%	53.8%		
Discuss Teaching/Curricula	67.1%	12.7%		
Other	59.3%	62.5%		
Plan Professional Development	51.9%	42.9%		
Plan Curricula	46.9%	47.8%		
Observe Classroom Instruction	31.6%	76.7%		

INSTRUCTION & CURRICULUM			
		% Leading	
Subject	% Leading	Alone	
Science	73.3%	45.5%	
Multiple Subjects	62.9%	37.3%	
English/Language Arts	61.8%	61.9%	
Not Subject Specific	60.3%	34.3%	
Social Studies	58.3%	78.6%	
Reading	54.1%	35.0%	
Special Education	47.5%	57.9%	
Other Subject	45.2%	57.9%	
Writing	40.0%	100.0%	
Math	39.4%	42.3%	

Table 8. Percent of Time Leading and Leading Alone by Subject





Positions

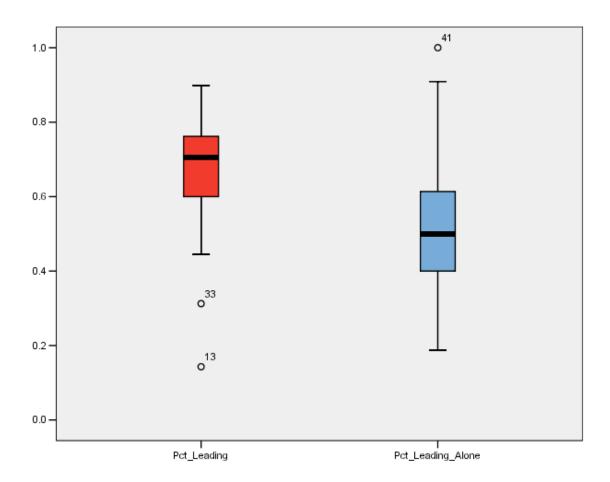


Figure 2. Percentage of Time Leading and Leading Alone

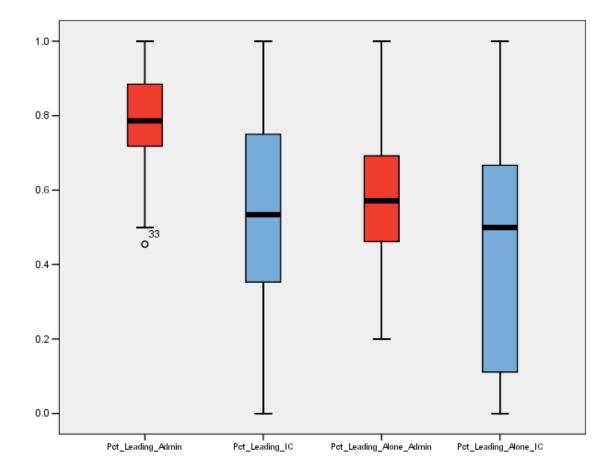


Figure 3. Percentage of Time Leading and Leading Alone by Activity Type

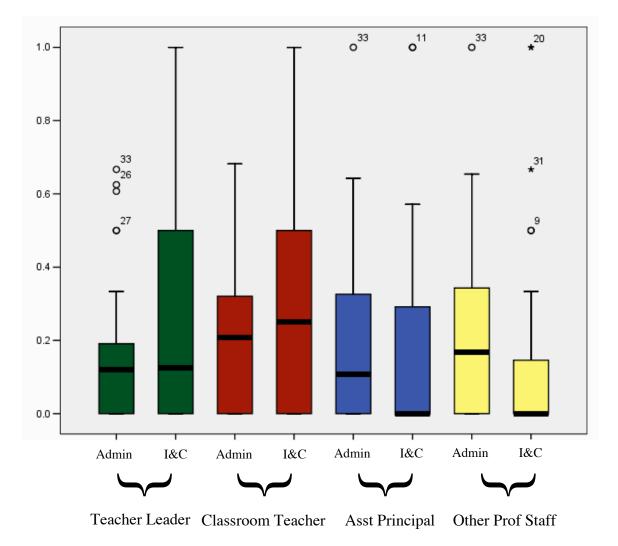


Figure 4: Between School Variance in Principal's Co-Leaders by Activity Type