

The background of the cover features a series of parallel blue lines that curve and ripple, creating a sense of movement. Several paper boats are scattered across the scene; one prominent red boat is in the center, while others are white and positioned further back and to the sides. The overall aesthetic is clean and modern.

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The Influence of Teacher Leadership Programs on Teacher Leaders, Teachers, Schools, and Districts

Report prepared for the Nellie Mae Education Foundation by the
Consortium for Policy Research in Education

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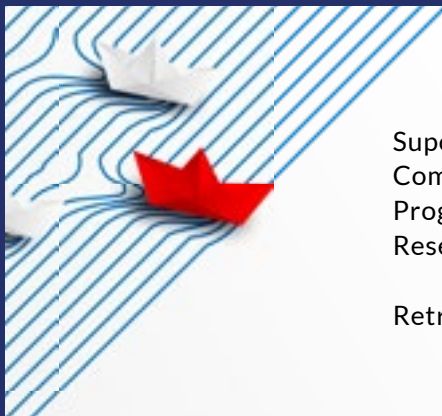
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Executive Summary

Teacher leadership is increasingly recognized as a promising strategy to improve the quality of instruction in U.S. schools. Despite the rising number of teacher leadership programs in the country, there is a paucity of knowledge about the work that teacher leaders (TLs) engage in, how educators experience teacher leadership and the impacts of these efforts on teacher leaders themselves and on districts, schools, teachers, and students. In response, the Nellie Mae Education Foundation (NMEF) supported the Consortium for Policy Research in Education (CPRE) to investigate educators' experiences with teacher leadership and describe the impacts of this improvement strategy.

In a recent national scan of teacher leadership programs in the United States, our team identified over 280 teacher leadership programs that support teacher leaders (Berg, Horn, Supovitz & Margolis (2019). These programs either prepared teachers with knowledge and skills to lead, positioned them in leadership roles to capitalize upon their expertise, and/or recognized them as leaders through awards and other forms of appreciation or acknowledgement. Some of these programs combined all three of these approaches. The scan led us to hypothesize that programs that prepare, position and reward teachers as leaders were most likely to demonstrate impacts.

For the present study, therefore, we selected three teacher leadership programs designed to prepare, position and reward teacher leaders as agents of instructional improvement and examined the influence of these programs on teacher leaders, teachers, school and districts. Two were district-based programs and one was a state-based program from which we investigated two districts.

The district contexts ranged from urban to suburban to small city to rural. Site visits involving interviews and observations were conducted with teacher leaders, teachers, school administrators and district administrators who work with these programs. Focus groups and surveys were also conducted with teachers and teacher leaders throughout the four districts. In addition, the surveys were also administered in three comparison districts. Key study findings include:

- On average, TLs in the four programs spent about 40 percent of their time on teacher leader responsibilities, but this ranged from fully released TLs to those who had no release time at all.*
- TLs in the four programs served in a wide range of roles, including instructional planning with teachers, school and grade-level professional development, lesson planning with grade level teams and individual teachers, facilitating analysis of student data, mentoring novice teachers, hosting model classrooms, assisting teachers with technology adoption, and working as subject matter specialists.*
- As TLs often had more access to school and district administrators, teachers came to utilize them as a liaison between teachers and administration.*

- ↗ Teachers across the four study districts generally felt that TL coaching and teacher evaluation should be kept separate. In the one study district in which TLs played a role in the formal evaluation of teachers, teachers and TLs were significantly more positive about the mixing of coaching support and evaluation by TLs than in the districts where TLs only played a coaching role.
- ↗ Educators in all sites described improvements in school and district culture as a major impact of their teacher leadership initiatives, with improvements in collaboration, coherence, and communication.
- ↗ Teacher leadership advanced district priorities through its impact on enhancing networking throughout the districts and improving the districts' leadership pipelines.
- ↗ TLs were significantly more likely to be central in their school colleagues' professional networks and recipients of their colleagues' requests for instructional assistance.
- ↗ Relative to a set of comparison districts, we found no significant differences in either teacher reports of TL influence or in teacher reports in their change in practice associated with teacher leadership. This may be because coaching/teacher leadership was just as common in the comparison districts as in the four districts of investigation.
- ↗ Within the four study districts, we found positive and statistical significant relationships between teacher reports of TL support and both teacher reports of TL influence and changes in instruction. Small-group professional development and instructional planning were the TL activities most strongly associated with teacher reports of TL impacts.

Collectively, these findings suggest several impactful teacher leader program design ingredients, including role clarity and the creation and deepening of both vertical (cross district) and horizontal (within school) system connections. The findings also reveal several unanticipated benefits of formal teacher leadership, including improvement of school and district culture due to greater communication and information flow, as well as a consequent deepening of district priorities. Finally and importantly, we did detect significant relationships between teacher leader efforts and improved teacher instructional practice. Even so, the results indicate that impacting teaching practice via teacher leadership requires concerted and sustained efforts.

Introduction

The concept of teacher leadership conveys a promising theory of instructional improvement whereby experienced teachers who are familiar with the knowledge base of their professional specialization, the context of their school and the specific needs of its students can work closely and incrementally with their peers to support improvements in teaching and learning. Although various conceptions of teacher leadership manifest the idea differently depending on goals and emphasis, in this report we focus on the development, positioning, and ongoing support of teachers who are explicitly charged with facilitating the instructional improvement of their colleagues.

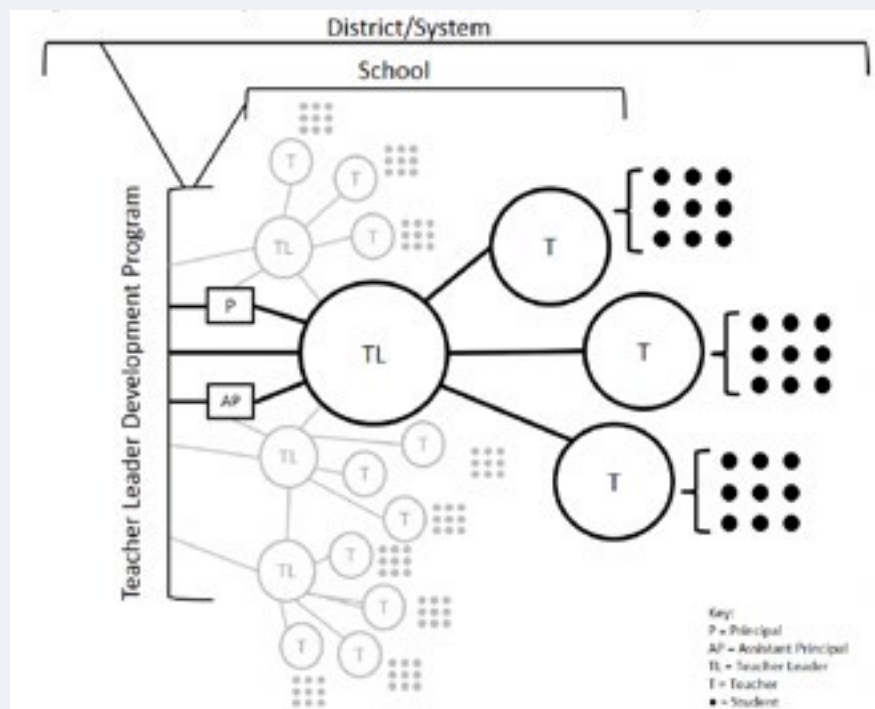
The theory of action of a formal, instructionally focused teacher leadership program is depicted in Figure 1. The theory of action shows the teacher leader program working with one or a set of teacher leaders in a school, as well as coordinating with the school's leaders and aligned with the district system. The school-based teacher leaders, in turn, work with teachers – either individually or in teams – on different aspects of instruction. In turn, teachers' instructional efforts are hypothesized to improve the learning of their students.

Based on this theory of action, we conducted a national scan of teacher leadership initiatives in the United States and identified over 280 teacher leadership programs that either prepared teachers with knowledge and skills to lead, positioned them in leadership roles to capitalize upon their expertise, and/or recognized them as leaders through awards and other forms of appreciation or acknowledgement (Berg, Horn, Supovitz & Margolis, 2019). Some combined all three of these approaches, which we hypothesized to be the form of teacher leader program most likely to produce demonstrable impacts.

For the study reported here we sought programs that featured preparation, positioning, and reward in their programs, as well as a focus on instructional improvement. We identified 79 programs that met these criteria and conducted an interview with the leaders of 20 of these teacher leadership programs, trying to better understand their program. We pursued a mix of programs of different sizes with different strategies and in different contexts. Informed by these interviews, we identified four districts in three states to examine in greater depth with a mixed methods research design.

The selected programs consisted of one large urban district in the southwestern United States, one smaller urban fringe district in the Northeast and two districts representing rural and small-city contexts in a state-wide program in the U.S. south. We then reached out to the programs and negotiated access to (1) conduct four site visits during the 2018-19 school year; (2) conduct a survey of schools in the district in the winter of 2018 or spring of 2019, and;

Figure 1. Theory of Action of Teacher Leadership



(3) collect existing student achievement data from the district to examine the impacts of teacher leadership in the site.

The three programs that were included in the study were the Denver Public Schools' Teacher Leadership & Collaboration (TLC) program, two districts participating in the Tennessee Teacher Leadership Collaborative, and the East Brunswick New Jersey Teacher Leadership Program. Despite differences in positions, structure, and philosophy, all three programs sought to support teachers in improving the instructional experiences of students, which they hypothesized would lead to gains in student performance on state and district assessments.

Our study was designed to answer the overarching question: *What is the influence of these teacher leader programs on teacher leaders, teachers, schools, and districts?*

To examine this overarching question, the research team focused on five sbresearch questions:

1. What were the emphases of the work of teacher leaders across the four districts?
2. What is the position and influence of teacher leaders in their school professional networks?
3. How did teachers, teacher leaders, and administrators experience teacher leadership?
4. What was the impact of teacher leadership on schools and districts?
5. What was the impact of teacher leadership on teacher practices and changes in instruction?

To address these five questions we used a mixed method design that included site visits with interviews, meeting observations, and focus groups, as well as data from a survey of teachers and teacher leaders from the four study districts and three comparison districts.

Teacher Leader Program Designs

The teacher leader programs of the four participating school districts are briefly described here. Although each district had a distinct approach to teacher leadership, each designed their program as part of a systemic strategy to both build capacity to support instructional improvement and as a way to build leadership capacity in their district. The districts' teacher leadership programs were designed to:

- build instructional capacity by identifying, placing, and supporting experienced teachers to aid classroom teachers via a variety of strategies;
- develop a career pathway for teachers who wanted to play leadership roles and develop leadership skills;
- foster the growth of new leadership capacity in their schools and district;
- deepen the communication conduit between classroom teachers and administrators;
- enhance school culture.

A brief summary of the four programs is described below.

Denver Public Schools Teacher Leadership and Collaboration Model

Initiated in 2013, the Denver Public Schools' (DPS) Teacher Leadership and Collaboration model was designed to provide a career pathway for teachers to continue to work with students while developing their instructional leadership skills. The TLC program supports several different positions for teacher leaders, conceptualized as part of a "roles progression" that includes Specialists, Team Leads, and Senior Team Leads. Specialists work with school colleagues to unpack and align standards, plan units and lessons using standards and data, and facilitate teacher teams to analyze data to inform lesson planning and instruction. Team Leads observe lessons and provide individual coaching feedback to teachers approximately weekly within four- to eight-week learning and improvement cycles. Senior Team Leads perform the same function as Team Leads, but with a larger case load and the additional responsibility for participating in formal teacher observations. In 2018-19, it supported 1200 teacher leaders in 132 of Denver's 207 schools, based on school-level decision to participate.

Teacher leaders in the TLC program are supported and rewarded with a mix of release time and money. Specialists receive stipends of \$1500 but no release time, Team Leads receive approx. 50% release time and \$3000, and Senior Team Leads receive full release time and \$5000. The program was launched with the financial support of a federal Teacher Incentive Fund grant, and eventually became funded as part of a larger bond voted on by the public.

To be eligible for TLC teacher leader roles, teachers must meet performance criteria, including two years of demonstrated effectiveness on the district's Leading Effective Academic Practice (LEAP) growth and performance system. Interested teachers participate in an application process, and those who are appointed must reapply every year for their positions. Once in the role, teachers are prepared for their leadership roles through professional development sessions with cross-school cohorts of teacher leaders as well as in-role coaching.

The program is managed centrally by district-level administrators who coordinate the work to position, reward and prepare teachers in the TLC program. They collect data regularly and use it to make program improvements each year.

East Brunswick New Jersey Public Schools

The East Brunswick New Jersey School District (EBSD) is located in northern New Jersey about 40 miles south of New York City. EBSD has about 4,000 students in 11 schools. This small-city district employs about 680 teachers in its eight elementary schools, two middle schools, and one high school. The district's teacher leadership program outlines three types of teacher leader positions that are available to each of these schools. First, Instructional Coaches are those who provide one-on-one instructional support for teachers. Second, each school can have both a Mathematics and English Language Arts Specialist who is available to coach teachers on content-specific issues half the time, and works with students in small intervention/basic skills groups during the balance of their day. Third, technology coaches assist teachers with educational technology in their classrooms. In the 2018-19 school year, there were 56 teacher leaders positioned in the district's 11 schools. All of these teacher leaders are charged with fostering a collaborative culture of educator support and development in their schools, promoting the use of data to inform instruction, and facilitating teachers' improvements of instruction and student learning. In addition, they sit on school-level Leadership Teams, participating in school-level decision-making and information-sharing meetings.

The EBSD program grew out of a grant that supported teachers to develop learning modules and roll those out to peers while supporting with coaching. This helped the district to establish a structure for building teachers' capacity to support their peers' learning. When the grant ended, assistant principal positions were eliminated to make room in the district's budget to continue teacher leader roles. Instructional coaches receive a full-time release from teaching and a salary differential. Content Specialists are rewarded for their role with stipend, and technology teachers, who are full-time teachers, count their technology support work as one of their administrative duty periods.

Teachers are prepared to perform these roles with support from the program director who provides a combination of learning activities including summer retreats, monthly role-alike PD sessions, school walk-throughs and book clubs. Teacher Leaders are also expected to meet monthly with their school principal. In addition, teacher leaders are encouraged to participate in the Teacher Leadership Academy, a year-long training open to all EBSD teachers who want to improve their teaching, leadership, and communication to improve student learning. In fact, in 2019, this program was used as a model by the NJ Department of Education for its new Teacher Leader Endorsement. Teacher leaders in the district report to the program director, who manages this program as part of a portfolio of district HR duties related to staff development and evaluation.

Tennessee Teacher Leaders Network

In 2013, the Tennessee Department of Education launched the Tennessee Teacher Leader Network (TLN) to support districts to develop innovative and sustainable teacher leader models that can produce results in increased teacher effectiveness and improved student learning. Through this program, the state provides grants for district teams to plan—but not implement—their own locally-responsive models. Participating districts must agree to four non-negotiables:

6. Assemble a four-person vertical team that will attend all seven TLN monthly meetings
7. Commit to building a comprehensive teacher leader model that reaches all schools in the district
8. Align all teacher leader roles with the Teacher Leader Model Standards
9. Commit to sustaining their TLN model for multiple years through dedicated funding

The TLN uses a cohort model to facilitate districts in developing their teacher leader models. To guide district planning, the state provides a design framework for teacher leadership programs which include eight core elements:

(a) a process for identifying teacher leaders; (b) roles and responsibilities for teacher leaders; (c) building capacity of teacher leaders; (d) a plan for developing strategies for success; (e) creating an implementation timeline; (f) estimating program costs, and; (g) communicating the teacher leadership plan.

As a state-sponsored model, the TLN is strategically positioned for integration with other state initiatives. In 2011, for example, the Tennessee State Board of Education adopted the Teacher Leader Model Standards, which provide a cohesive, transparent set of skills and competencies to guide and encourage the development of teacher leaders in seven domains of TL influence. These standards were then used as a framework for developing and supporting TLN roles. As another example of integration, in 2018, Tennessee revised its instructional leadership standards to include the national teacher leader and professional learning standards and embed an equity lens, emphasizing shared leadership structures and practices. The instructional leadership standards are an expected component of districts participating in the TLN.

As of 2019, 62 of Tennessee's 137 school districts had worked with the TLN to initiate teacher leadership models through this program. We collaborated with the state TLN program director to identify two district that developed teacher leadership initiatives with fidelity to the four non-negotiables and eight core principles, and that have been implementing their programs for at least three years.

Lincoln County, Tennessee Teacher Leadership Program

The Lincoln County Schools (LCS) are located in the southern central part of Tennessee, surrounding Fayetteville and bordering on Alabama. Lincoln is a suburban district with seven schools, just over 4,000 students, and about 270 teachers. The district spends about \$8,500 per pupil on education. In 2013 the district received a Teacher Incentive Fund (TIF) grant from the U.S. Department of Education to support a differentiated pay plan for teachers in Lincoln County. The district joined the TLN 2014-15 cohort to develop its TIF teacher leader program, which was first implemented in 2015.

Teacher leaders in Lincoln County hold a range of positions including Content Leads, Professional Development (PD) Leads, Early Literacy Leads, Technology Leads, and Mentors. ELA and Math Content Leads as well as PD Leads open their classrooms as model classrooms, conduct school and district PD, and analyze performance and non-academic data. Early Literacy Leads facilitate the K-2 curriculum implementation and serve as model classroom teachers. Technology Leads facilitate the district's one-to-one (laptop) initiative and meet frequently with teachers during school, before/after school and virtually to support district-wide technology initiatives. Mentors support new teachers in multiple ways. They model pedagogy and best practices, observe classrooms and offer feedback, lead a different book study group each year, and lead a 5-year mentoring program.

To be eligible to become a teacher leader in Lincoln, teachers must score above a threshold within the Tennessee teacher evaluation system and apply to the district for the position. Principals review and recommend candidates and a district supervisory team makes the hiring decisions. While Lincoln teacher leaders have no release time, for the first three years of the program, TIF funding supported the district to provide stipends of \$4,000 for the work they do above and beyond classroom teaching. Since that time, the district has continued to fund about 30 teacher leader positions each year at a reduced stipend rate of \$1,250. Teacher leaders have annual, renewable contracts, and several available positions remain unfilled each year.

Content Leads receive extensive professional development regarding changes to curriculum and instruction, primarily during the summer, so that they can then deliver that PD to their respective teachers throughout the year on PD days.

Robertson County, Tennessee Teacher Leadership Program

Robertson County Schools (RCS), located in north-central Tennessee abutting Kentucky, employs 760 teachers to serve about 11,000 students in 20 schools. The rural school district spends just over \$8,000 annually per student. Robertson joined the Tennessee Teacher Leader Network in 2015 and began its teacher leadership initiative in the 2016-17 school year.

RCS's teacher leader program has approximately 30 teacher leaders positioned in its 20 schools. Their roles include school-based Content Teacher Leaders and cross-school Instructional Coaches. The Content Teacher Leaders at the elementary level focus exclusively on literacy. These Literacy Leaders are intended to provide targeted literacy support and resources to teachers to improve student literacy proficiency. They model effective literacy instruction by hosting a model classroom, serving as reading content specialists, supporting connections across content areas, developing and delivering teacher training at both the school and district levels, mentoring new teachers, and generally supporting the literacy instruction of their colleagues in their schools. The role of middle and high schools Content Teacher Leaders is similar, but represents multiple content areas and they do not host model classrooms. The full-time Instructional Coaches facilitate larger professional development initiatives, teacher mentoring, on-going coaching cycles, working with grade level PLCs, and coordination of visits to literacy leaders' classrooms. To facilitate the model classroom visits, they often coordinate with guidance counselors to provide the release time for the observing teacher. Instructional coaches also go into other teachers' classrooms to model a lesson or co-teach.

There is no reduction in teaching time for Content Teacher Leaders, and the stipend is \$2,000/year for elementary teacher leaders, and \$1,500/year for middle and high school teacher leaders. Instructional Coaches have full-release positions, The district funds this program in part with Title I funds.

Teacher leaders are selected through an application and interview process. Literacy Leaders are provided with nine hours of grade-span-specific training in reading models, literacy foundation skills, vocabulary, and writing. Instructional Coaches in Robertson meet monthly as a PLC group, participate in book studies, and attend state training. RCS employs a district-level coordinator to oversee the teacher leader work and provide ongoing communication with school leaders and other stakeholders.

Data Collection and Analysis

This report is based on in-depth qualitative fieldwork and a large-scale survey administered in the four districts under study and three comparison districts.

The qualitative fieldwork occurred within the four participating school districts. Each of the four districts had school site-visits three times across the 2018-2019 school year. Each visit consisted of two to three days of interviews and observational field notes within several schools and the district central offices. During the visits, we conducted over 100 interviews and focus groups with district administrators, school principals, teachers, and teacher leaders. While all visits included shadowing of teacher leaders, the first visit focused interviews on the experiences of teacher leaders and administrators, the second on the experiences of teachers, and the third on teacher leaders' and administrator's reflections on the year and thoughts moving forward. In a few cases, unexpected occurrences (e.g., the DPS teacher strike, a snowstorm) led to a reshuffling of visit foci. In addition, all three sites were visited prior to or early in the school year to observe teacher leader training and to interview district level administrators on plans for the upcoming year.

In both RCS and LCS, district administrators arranged for the researchers to visit a broad array of schools,

giving a more holistic sense of the district's teacher leader model. In RCS these were primarily elementary schools which housed the model classroom/literacy leader model. In LCS, visits were to the majority of district elementary, middle, and high schools. In DPS, fieldwork occurred more in-depth within one elementary and one middle school. In EBSD, site visits were also more in-depth at two elementary schools and one high school.

All qualitative interviews were transcribed and, along with observational descriptive field notes, were uploaded into Dedoose, a qualitative analysis software program. The research team then developed a coding scheme based on our theory of action and emergent findings and themes. In early phases of the process, some codes became obsolete while others were collapsed to minimize the number of codes and maximize inter-coder reliability. Once the research team coded with approximately 85% consistency, the code book was finalized. The broader coding scheme then guided the analysis and writing of the findings.

The survey was administered via email in the winter of 2018 and spring of 2019 to all teachers and teacher leaders employed in the four districts that were the focus of our research, as well as three comparison districts. This included approximately 1,900 teachers and 330 teacher leaders in 62 schools in these seven districts.

Survey response rates ranged from a low of 23% to a high of 91%, averaging 63%. In DPS, we surveyed schools in two time periods. The first set consisted of eight schools in November 2018. The second set, which followed a teacher strike in the district, consisted of four additional schools in March 2019. The population of schools in LCS, EBSD, and RCS were surveyed between March and May 2019.

The survey asked questions about teachers and teacher leaders' backgrounds, their teaching and leadership experience, the teacher leadership selection process, their perceptions of teacher leader supports, and their reported influence of these supports on their practice, as well as teachers' reports of influence on instruction and individual and school characteristics.

The survey also contained a social network component that utilized an ID strategy based on the belief that perceived confidentiality of not "naming names" would increase candor and response rates. Before the survey administration we asked schools to provide a full roster of all their faculty and instructional support staff in the school. We used these to create rosters that accompanied each online survey. On the roster, each person was associated with an identification number that we generated and that was not associated with the individual's district ID. In responding to the social network questions, participants reported the ID number, not the name, of the person they went to for advice, as well as their own ID. These IDs allowed us to map the social networks of the schools and examine TL roles in the network.

The survey data for all sites were combined into one database. Where appropriate, we conducted factor analyses to confirm pre-identified scales and items were combined to represent constructs of interest. We used these data to run descriptive statistics, analysis of variance (ANOVA) tests of differences between districts, and multi-level regression models to address appropriate aspects of the research questions.

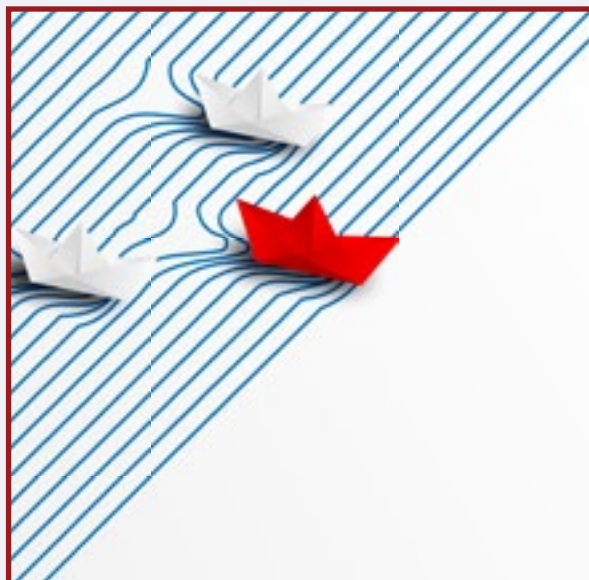


Table 1 shows the basic size and demographics of the four treatment and three comparison districts based on data provided from the National Center on Education Statistics.¹

Table 1: Demographics of the Treatment and Comparison Districts

District	State	Schools	Students	Community Demographics
DPS*	Colorado	206	92,000	54% White, 9% Black, 31% Hispanic, 4% Asian
EBSD	New Jersey	11	8,000	61% White, 4% Black, 8% Hispanic, 26% Asian
LPS	Tennessee	8	3,900	92% White, 2% Black, 3% Hispanic, 0% Asian
RPS	Tennessee	23	11,000	84% White, 7% Black, 6% Hispanic, 1% Asian
Comparison 1	Tennessee	15	5,600	97% White, 1% Black, 1% Hispanic, 0% Asian
Comparison 2	New Jersey	4	3,000	72% White, 1% Black, 6% Hispanic, 19% Asian
Comparison 3	New Jersey	3	3,000	75% White, 3% Black, 5% Hispanic, 15% Asian

* Our survey includes data from only 12 DPS schools; all other districts had a school population survey.

Findings

The report findings are organized into five major section organized by the five research questions. First, we describe the work of teacher leaders and how this differs across the four districts. Second, we examine the position and influence of teacher leaders in school professional networks both within their own districts and relative to a set of comparison districts. Third, we assess how teachers, teacher leaders, and administrators experienced teacher leadership. Fourth, we examine the influence of teacher leadership in schools and districts. The fifth part of the findings section reports on the impact of teacher leader influence through teacher’ reports of changes in their instructional practices.

The Work of Teacher Leaders

In this section we address research question one: What were the emphases of the work of teacher leaders? We do so by examining how teacher leaders in the four districts reported distributing their time between teaching and teacher leadership and the teacher leadership activities they engaged in across the different sites.

Time spent on teacher leadership

To set the expectations for teacher leader efforts, it is important to understand how much time designated TLs in each site reported working with other teachers, as opposed to teaching in their own classrooms. Table 1 shows the average and range of time that teacher leaders in the different sites reported working on their teacher leadership responsibilities.

1 <https://nces.ed.gov/ccd/districtsearch/>

Table 2: Teacher leaders reports of time spent on Teacher Leadership (n=174)

Site	Number of Teacher Leaders Responding to Survey	Average Percentage of Time TLs reported working on teacher leadership responsibilities (with standard deviation in parentheses)
DPS	27	54.74 (23.93)
EBSD	66	38.02 (28.67)
RCS	56	34.5 (28.12)
LCS	25	20.68 (37.30)
Overall	174	36.99 (27.30)

On average, teacher leaders reported spending just under 40% of their time on teacher leadership activities (with the rest of their time presumably in the classroom). However, there was wide variation (standard deviation) around this average, with 70% of the teacher leaders ranging between 10% and 65% of their time on teacher leadership activities. The spread likely represents both the range of time devoted to teacher leadership and the different types of teacher leaders in each site, which we did not distinguish between on the survey.

Teacher leaders in Denver reported spending the most time on teacher leadership, where they averaged more than 50% of their time devoted to TL responsibilities. East Brunswick and Robertson County TLs, across the different roles, reported just around the overall average, spending just under 40% of their time on teacher leadership activities. Lincoln County teacher leaders spent the least amount of time on teacher leadership, reporting spending about 20% of their time on teacher leadership, with little variation around this mean (~8%). These TL reports of attention to teacher leadership amongst their teaching and other school responsibilities provide important context for subsequent analyses.

Teacher Leader Activities

Here we use qualitative data to examine teacher leader activities across the four districts. In looking at teacher leader activities, as referenced by both TLs themselves as well as those they interacted with (teachers and administrators), some similarities existed across sites. For example, ongoing “support” and the frequent sharing of resources was widely referenced. In addition, some roles crossed some of the sites, like full time instructional coaches and technology teacher leaders.

However, teacher leader activities as reported and experienced by various constituencies in these four teacher leader programs were more distinct than alike. Therefore, we share our findings by site, and then summarize by looking across the sites.

Teacher Leader Activities in Denver

In Denver teachers reported that TLs guided them in meaningful professional development, shared “teaching tips” they had never encountered before, and helped them with classroom management. Sometimes TLs would videotape a teacher’s lesson and/or debrief a videotaped lesson to help improve their practice. In one of the schools, where videos were particularly emphasized, TLs would also tape some of their coaching sessions with teachers. The principal explained as he showed one of these coaching videos, “He [the TL] is showing the model of what we want it to look like ... so they are actually going to practice ... how many times have teachers never practiced?”

Teachers appreciated the consistency of their interactions with teacher leaders so that there was someone who “knows your teaching style and can help you grow.” One teacher explained that he felt his instructions to students had become clearer because his TL “has been modeling them for me, [and] coaching me a lot on that.”

Teacher leaders in DPS reported an emphasis on ongoing coaching and support, while at the same time having “those difficult conversations” when something was not right in a teacher’s classroom. For example, while shadowing two TLs visiting teachers’ classrooms, they both shared that they were supposed to be “looking at engagement and differentiation.” One of the TLs commented that she was “seeing some potential gaps in the lesson,” including that the teacher was not checking for student understanding. The TLs would take notes in standardized electronic forms, which the principal also had access to and frequently reviewed. Sometimes TLs added pictures of student work as evidence of teacher impact on student learning.

In one school, TLs were observed at their standing Monday morning leadership team meeting with the principal. Each TL wrote one “notecard of praise” for a teacher in their caseload. Sometimes, however, TLs were observed being pulled into meetings that had little or nothing to do with coaching or evaluating other teachers. One TL shared that he had been asked to attend a meeting about “intervention blocks,” where he and his TL colleague remained silent most of the time.

In another school that emphasized more “push-ins” and de-emphasized evaluation, TLs were frequently observed working with students in other teacher’s classrooms. For the most part, minimal teacher coaching occurred during the site visits, and the emphasis was on the TL getting to know the teacher’s students, the classroom culture, and student learning objectives. In a more evaluation-focused school, a TL described her work as “calibrating” towards the district evaluation framework as well as school goals, and then coming up with “action steps” to help the teachers improve.

In both schools, the formal evaluation of teachers was a responsibility of TLs that came in addition to the TLs own classroom teaching on average about 50% of their time. One TL described it as:

... a double role. It's the coaching side of, hey, I'm able to give you all this feedback, we're able to practice together, we can script it out together, without it being anything legally evaluative. And there's also the other side of, hey, this part of my job - I'm coming in, I'm being objective using this rubric looking at what we're doing without letting anything else get in the way.

By conceiving of coaching and evaluation as a ‘double role’ TLs in DPS were able to navigate these different aspects of their job and provide both support and accountability.

Teacher Leader Activities in East Brunswick

EBSD had three different teacher leader roles, each of which worked in different ways to support teachers and students. A central component of the EBSD model were full-time instructional coaches (ICs, with nine total in the district), who said they were focused on improving teachers' instruction with an additional focus on student engagement. They reported doing this through "building relationships" and creating a "game plan based on the individual teacher." They also served as a connector within the school, collaborating across constituencies. As one IC explained, "So much of my role is collaborating with the principal, the reading specialist, the math specialist, the student assistant specialist ... [on] whole school initiatives and programs." Sometimes, TLs described the number of initiatives teachers and TLs needed to attend to as being "overwhelming." Teachers saw the IC as taking a "strong role" in working with first year teachers, where they believed the TLs were particularly effective and important as compared to "a tenured teacher."

A second TL role in EBSD was content specialist in either math or reading, where TLs served as liaisons between the respective district supervisor and the buildings to communicate and support changes in the math and reading curricula, with a focus on supporting teachers with "new units of study." Sometimes these TLs would "run data" and "monitor data from different assessments" to see where students were succeeding and struggling, and then focus professional development and teacher coaching activities around areas of need. Balancing teaching and leadership was a challenge. Several TL specialists said they tried to leverage their time in classrooms working with kids by modelling instructional guidance for other teachers. Even with these TLs responsibilities, all agreed that their "primary role is with kids."

Specialists said they also were readily available, and sometimes utilized, for "teachers coming in and asking for suggestions ... or help, or 'Hey, what do you think of this idea?'" One ongoing challenge, however, was availability, as most of their responsibilities were still student support-based. One TL specialist explained: "I have to kind of plan around my schedule and plan around their prep schedule. So there were a lot of times we would meet in the morning, we would meet after school, and we'd also talk a lot after school hours through text or phone calls, back and forth ... so it doesn't interfere with my other classes with kids."

The third TL role in the EBSD model was tech leader. These TLs served a sounding board for teachers trying to integrate new technologies into their classroom. One teacher explained it as "[teachers] bounce ideas off them, because they are seen as teachers who have already started taking that step into creating more of a digital presence with their classroom." Often, these interactions would happen at the "Genius Bar" in the library, where tech leaders often spent their duty period or during monthly "Tech Tuesdays" held in the IC's office. However, some teachers said they didn't know who the tech leaders were - with one saying he didn't think of them as "teacher leaders." Additionally, some tech leads shared that, more often than not, their expertise went unused during their assigned tech leader period.

Across the three roles, TLs reported they were most proud of activities when they provided teachers with helpful resources that tangibly changed classroom environments. Many of these resources were retrieved during their preparation time, and then shared either via email or in person. Without any formal evaluative authority, some TLs approached attempts to improve teacher instruction "with baby steps." One TL described her approach this way: "I was going around and I was with teachers or were talking about a lesson or things going on in their room, it was like, 'How can we make this little shift?' or 'kick it up a notch?'" Both ICs and specialists were observed conferencing with teachers individually, sharing ideas about curriculum, instruction, and particular students/groups of students.

While EBSD TLs had no formal evaluative authority, both TLs and teachers said that they were intended

to be utilized for conversations about evaluation – both before and after visits by administrators. One IC was observed debriefing a more negative evaluation with a teacher, encouraging her to be “coachable” and to “keep your head up ... stay positive ... you need to work on some things, like any teacher.”

One challenge for ESBD teacher leaders was being pulled into meetings that had nothing to do with coaching other teachers. For example, one IC participated in every student intervention meeting that occurred in the school. He shared that he participated in about 50 of these meetings per year, and other teachers in the school questioned whether this was a good use of his time.

Teacher Leader Activities in Lincoln County, TN

One main TL role at this site was mentoring, where TLs felt that they had great responsibilities to ensure that new teachers succeeded. Mentoring responsibilities included orienting new teachers to the evaluation rubric and school culture, classroom management, and holding monthly mentoring cohort meetings inclusive of book studies. The mentors worked from a “green book” which had a five-year plan for new teacher induction to the district. While the TLs enjoyed “helping teachers grow,” more than any other district there were concerns about time (all had full-time teaching responsibilities) and low stipends (which had been significantly reduced after the initial Teacher Incentive Fund grant expired). Some even said that the task had become “impossible” without more time, especially with increased influxes of new staff.

New and early career teachers reported working with the mentor TLs frequently, both formally and informally, and even more intensely before formal observations by administration. Mentors were appreciated by teachers as “being somebody they know they can come to ... that genuinely cares about them. I feel like she’s that person for me.” In mentoring meetings, TLs were observed balancing teacher-to-teacher support and community building with attending to more managerial/administrative matters. One mentor TL explained to her cohort during a monthly meeting, “My main job is not to tell you what to do, I am not your administrator ... my job is to guide you ... and for us to share ideas.”

An additional TL role in LCS was content lead. Principals said these TLs often served as “liaisons for us to the central office” because they would attend district meetings regarding curriculum and instruction and bring information back to the schools for wider dissemination. Content teacher leaders (mostly reading and math, and a couple in science) would attend trainings at the district office, and then present back to their whole schools on professional development days. Follow-up interactions with teachers were more ad hoc, occurring informally in the hallways and formally as needed. During periods of time where new curriculum was being rolled out, some TLs were more active and had teachers visit their classrooms to see what it looked like “piece by piece.” However, the primary role of the TLs was to deliver professional development to teachers in whole-group and small-group formats. Sometimes, TLs would survey teachers asking “What do you need?” while other times the professional development was district-focused, such as a central office initiative on “visible learning.” In general, the content teacher leader’s role was to “go” (to district PD trainings, primarily though not entirely during the summer) and then “bring back” (to their home schools) this information on in-service days.

Responsibilities of content leads were often changing, which sometimes created some confusion. One science TL said she had tried to serve as a connector between middle and high school science departments, but that “I don’t really know if I did what I was supposed to do, but I don’t know if what they told me to do was really clear either.”

An additional TL role, tech leaders, shared resources electronically with teachers, worked one-on-one

with teachers as requested/needed, and periodically ran professional development sessions. Teachers saw the tech TLs as “leading us in professional development ... we’re having one Wednesday on Google.” One teacher commented that she appreciated the “speed with which” her tech TL was “able to dispatch most issues.” Some tech TLs reported consistently sharing new tools with teachers and “going into a lot of individual classrooms, and kind of modeling for teachers, and answering pretty specific questions.” One tech leader was observed delivering an afternoon PD session to teachers where she introduced new classroom resources, including Screencastify, FlipGrid, and ClassDojo.

In addition to their role-specific TL responsibilities, many of the TLs sat on school-level “leadership team” committees which met monthly. Because none of the TLs had specified release time no matter what their role, teacher interaction with TLs outside of formal PD sessions was often based on proximity. On a day-to-day basis, the mentor and tech TLs were most utilized, while the content TLs did most of their in-school work during formal PD sessions.

Teacher Leader Activities in Robertson County, TN

Within RCS, the role of literacy leaders was similar to content leads in EB. These TLs were trained in the summer on a new district- (and often state-) supported approach to teaching reading, deliver this information during professional development sessions throughout the school year, and then host a model classroom to be observed by others teachers on a rotating basis throughout the school year. One literacy leader succinctly described the process as, “They are supposed to come in here and see what we just trained them on.” Trainings would focus on different approaches to reading as well as the use of different types of materials – for example, one literacy leader was observed delivering PD to 50 teachers on the use of “high-quality texts.”

RCS also had full-time instructional coaches, who were responsible for the ongoing development of individual teachers, often focusing their work with new and struggling teachers. Sometimes the ICs would also model lessons in teacher classrooms, although this was more inconsistent. Teachers reported seeking out the ICs when encountering a new curriculum or suggested re-formatting of their classroom, such as moving towards “centers.” The ICs were also charged to “bring data” to individual teachers, as well as teacher teams, to help guide improvement strategies. While widely reported to be a significant benefit to teachers and always available for support, both TLs and teachers mentioned that the ICs not having their own classroom “to authentically model for them” was a detriment.

ICs might also arrange for a teacher to observe another teacher, and provide varying levels of support to mediate the experience. Ultimately, the instructional coaches were supposed to “go in with the teachers, observe with the teachers, then follow up ... with coaching cycles on things they noticed, things they want to work on.” According to district staff, this process was working very well in some buildings where it had become “routine” and much less so in others. Many teachers appreciated the opportunity to see new approaches live, with one commenting “it was priceless because I was having such a hard time and I saw how it could be done ... you have to see it be emulated.” Similarly, one literacy leader commented that she had 17 teachers observe her last year and that she believed “we learn by watching other teachers.” Another literacy leader shared that teachers would also come observe her for non-official, off-the-grid observations of her teaching.

One tension in this site’s TL activities is the amount of workload for the literacy leaders, who receive a relatively small stipend of \$2,000 per year for their work. Some described the workload as “crazy.” In addition to attending the summer trainings, providing ongoing whole-staff professional development, and hosting a model classroom, many of the literacy leaders were observed leading grade-level team

meetings. One principal commented that her literacy leader is “a leader in her group ... I’m seeing the excitement that she seems to just translate to her team members and then that goes to the students.” Some literacy leaders even had to expand their work outside their grade-level area of expertise, if an open position could not be filled at another grade level.

Teacher Leader Reports of Activities on The Survey

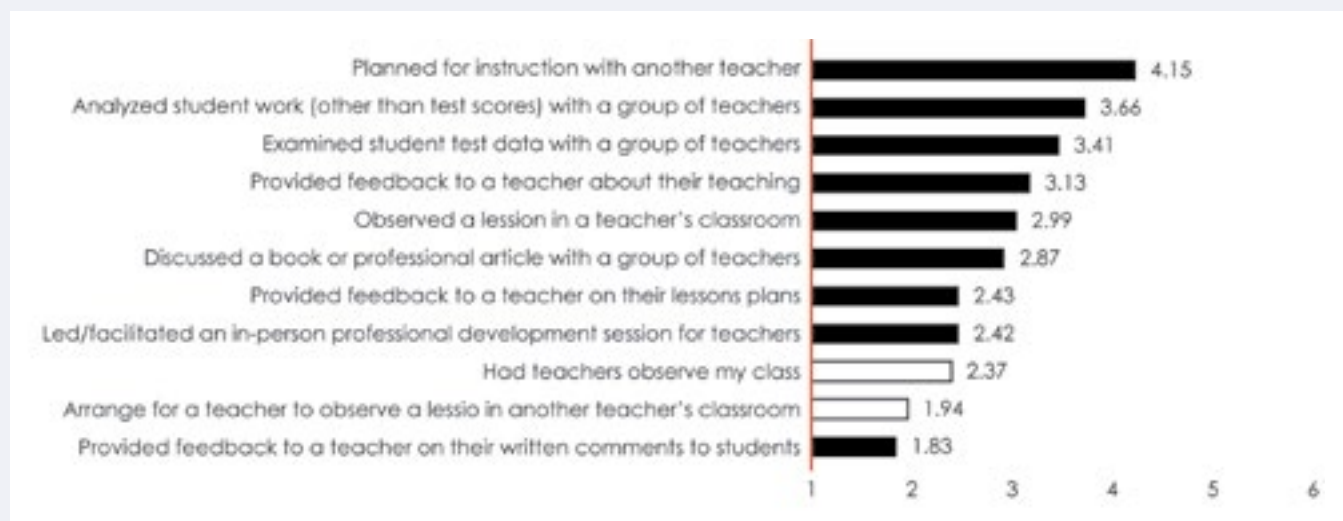
The survey results were consistent with the qualitative findings in that there were substantial differences in the emphasis of TLs’ work across the four districts. Figure 2 shows teacher leader reports of a range of activities with teachers. The graph emphasizes two things: First, it shows which TL activities were most and least frequent; second, the graph shows which activities significantly differed by site (black bars) and which were similarly frequently done by TLs across the four districts (white bars).

Planning for instruction with teachers was the most common activity reported by TLs, who reported that they did so about weekly. Examining student work and test data were the next two most frequently mentioned TL activities, with TLs reporting that they did this about a couple of times a month with teachers. Less frequently, but still regularly, teacher leaders reported observing lessons and discussing professional knowledge with groups of teachers.

Less frequently, TLs reported providing feedback to teachers on their lesson plans, facilitating professional development for teachers, and having teachers observe their class. Finally, TLs reported rarely arranging for teachers to observe each others’ classes and giving feedback to teachers on their written comments to students.

As noted by the black bars, almost all of these activities differed by district. In almost all cases, TLs in DPS reported doing these activities more frequently than TLs in the other districts. For the top five of these activities, TLs in DPS reported doing these things significantly more frequently than TLs in the other districts. In most cases, EBSD TLs were either the next most frequently reported conductor of these activities or similar to DPS teacher leaders, and their averages were often similar to those of RCSD teacher leaders. It is worth noting that these results track closely with the designs of the TL programs, with DPS and EBSD providing release time for TLs, while TLs in LPS and RPS had less release time.

Figure 2. Teacher leaders reports of activities with teachers (n=174)



Black bars signify statistically significant differences between teacher leaders of the four districts. White bars signify no differences amongst teacher leaders across districts.

Note: Reported numbers are mean responses for teacher leaders across the four districts. Survey scale: (1) Never or once, (2) A few times a year, (3) About once a month, (4) 2 or 3 times a month, (5) 1 or 2 times per week, (6) Daily or almost daily.

Teacher Leader Activities Summary

All the programs we investigated were designed to prepare, position and reward teachers for engaging in activities to improve instruction. But within this common frame, the programs exhibited substantial variation in emphasis. Both the qualitative fieldwork and survey research showed a wide range of TL activities occurring at the four sites. While generally related to providing ongoing, in-house support, the specifics of roles and responsibilities varied across the districts – and sometimes even within district. Facilitating conversations, learning sessions, and activities designed to provide ongoing and often-individualized support for teachers were commonly reported. Additionally, TLs both formally and informally worked to “connect” various ideas and people with which they interacted across the system—from the state, to the district, to school administration, to teachers, to students. At the same time, ongoing tensions included too many responsibilities and being pulled into administrative or student-related matters that took them away from developing and growing teachers.

The Influence of Teacher Leaders in School Professional Networks

Social networks have increasingly become an important part of research investigations in education and other social science fields as a way to understand the relational aspects of professionals in their work sites. Research on social networks is based on the theory of social capital (as opposed to human capital and physical capital), whereby valuable resources flow to and from individuals as a byproduct of their position in a web of professional and social relations. Similarly, organizations with more dense communication patterns are shown to have greater spread of ideas, knowledge, and resources flowing throughout the system. Social network analysis is a research tool to make invisible relational networks visible. By asking all the individuals in an organization who they go to when they seek resources, one can “map” the network for that particular resource.

Social capital and network analysis are becoming particularly important tools for the study of leadership because they can help to distinguish between formal organizational hierarchies, often represented in organizational charts, and leadership as the enactment of influence, regardless of position or title. In terms of teacher leadership, designated TLs who are well-positioned in their school networks are more likely to be “hubs” for sharing knowledge, ideas, and connecting people than those who are less central in a school’s professional network. TLs often emphasize their peer relationships because they must rely on a broader set of strategies than other school leaders who can rely on formal authority to exert their influence.

For this report, we examined the influence of teacher leaders within school professional networks in two ways. The first analysis examined the relative influence of TLs compared to other teachers in the schools in the study districts. The second analysis compared the requests for assistance of TLs in the four districts that were the focus of the study relative to the TLs in the three districts that served as comparisons. On the survey, every school faculty member was asked who they go to for assistance around particular issues. The final dataset allowed the research team to calculate the number of in-ties, or requests for assistance, that each faculty member reported. We can view in-ties as a measure of the enacted influence of an individual unrelated to formal leadership position, as when a teacher goes to someone for assistance because they

provide a valuable resource, whether they hold a formal leadership title or not. Finally, using independent sample t-tests, we can compare whether average in-ties are significantly different between TLs and teachers.

The first analysis compared the relative influence of TLs to other teachers in the schools in the study districts. Table 2 shows the average number of in-ties, or requests for assistance for the three networks, broken down by TLs and teachers across the four districts that were the focus of this study. When it came to requesting support for instruction, TLs received an average of 1.92 requests for assistance by others, compared to .95 for the non-TL teachers in the schools. The difference between these two was statistically significant.

In fact, as shown in Table 2, TLs received significantly more requests for assistance than did non-TL teachers in all three of the networks that we asked about. Do teachers go to these teachers because they are teacher leaders, or were they named teacher leaders because teachers tend to go to them? Qualitative data suggests the latter, as we shall see in Section 4.3.

Table 2. Mean Number of In-Ties by Network, Teacher Leaders vs. Teachers within Study Districts (with standard deviations in parentheses)

Network	Teacher Leaders	Teachers
Instructional Support	1.92 *** (3.67)	.95 (1.42)
Supporting Students At-Risk of Not Meeting Standards	2.29 *** (4.02)	.69 (1.23)
Student Discipline	1.86 *** (2.92)	.63 (1.13)

*** p <.001

The Influence of Teacher Leaders in Study Districts Compared to Teacher Leaders in Comparison Districts.

The second social network analysis compared the requests for assistance of TLs in the four districts that were the focus of the study relative to the TLs in the three districts that served as comparisons. Table 3 shows the average number of requests for assistance in the three networks of the two groups. The TLs in the study districts had, on average, more requests for assistance than did TLs/coaches in the comparison districts. For the instructional support network, the differences in average number of in-ties was small (1.92 compared to 1.88) and not statistically significant.

In the support for at-risk students and the student discipline networks, the TLs in the study districts had significantly more requests for assistance than did TLs/coaches in the comparison districts. It is interesting to note that the average number of in-ties of TLs in these latter two networks were much lower than for the instructional support network, signifying that in comparison districts, teacher leaders are less likely to be approached with questions about student learning interventions or advice on managing student behavior. It could be that teacher leader roles in the study districts were broader than those in the comparison districts, or it could point to some other difference in the design of the roles across the two sets of districts. This deserves further investigation.

Given that effort is expended to position, prepare and reward teachers for these roles, it is useful to note that teachers are seeing these teacher leaders as sources of support.

Table 3. Mean Number of In-Ties by Network, Study District Teacher Leaders vs. Comparison District Teacher Leaders (with standard deviations in parentheses)

Network	Teacher Leaders in Study Districts	Teacher Leaders/Coaches in Comparison Districts
Instructional Support	1.92 (3.67)	1.88 (3.75)
Supporting Students At-Risk of Not Meeting Standards	2.29 ** (4.02)	.92 (1.32)
Student Discipline	1.86 ** (2.92)	.73 (1.58)

** p < .01

How Teachers, Teacher Leaders, and Administrators Experienced Teacher Leadership

This section addresses research question three: How did teachers, administrators, and teacher leaders experience teacher leadership? We did so by sharing analysis of data related to how the activities of teacher leaders were experienced by various constituencies within the school district. Specifically, we focused on the experiences of teachers', teacher leaders', and administrators' experiences. Within each section, we share experiences from respective parties across the four school districts.

Teacher Experiences of Teacher Leadership

As with the teacher leaders, the teachers who were the targets of the TL programs expressed a wide range of experiences and viewpoints – ranging from enthusiastic appreciation, to ambivalence, to distrust and even resentment. Across sites, by far the most mentioned beneficial aspect of the TL programs was having “support” readily available in the building. This became particularly important when new school or district initiatives became challenging to implement in the classroom. For example, one teacher explained. “You go to trainings ... and then you come back and kind of forget about it ... but what’s cool about having people in the building is you can go to them and say, ‘OK, now what did that mean again?’”

In addition to the benefits of proximity and availability, teachers also appreciated that their teacher leader-supports were individuals who they could identify with as teachers. Being “in the trenches” increased comfort levels and reduced anxieties about asking difficult questions. Teachers also said that this made it more likely they would try a new approach, because “seeing other teachers that are encouraged by it and think it’s helpful ... you’re going to try to use it more.” At the same time, and for similar reasons, some teachers mentioned that while interacting with full-time instructional coaches (who no longer taught classes) was helpful, it was less impactful. And in several of the sites, some teachers viewed the full-time instructional coaches more as administrators than teachers.

An additional benefit that teachers mentioned across sites was having clearly delineated “point people” they could go to if faced with instructional challenges in a particular area (e.g., literacy, technology). Some, though not all, teachers were able to speak to specific areas they felt their teacher leader helped them improve, such as classroom management and using a particular technological learning tool. One

teacher explained, “It’s nice know they are the experts ... because we as teachers can’t do it by ourselves. But [it is helpful] to know there is someone who this is all they focus on...” This area of expertise would become particularly important to teachers in schools where widespread ambitious curricular initiatives were being rolled out. In one district, a teacher explained:

I just think that the curriculum, the initiative, that the State of Tennessee has put on the teachers has just been very heavy, and it’s a lot to learn. And I feel like if we heard it from a role besides that other teachers were hearing it, I think it would come across as maybe in a negative approach. ‘Do this. Make sure you’re doing this. Do this. You got to plan this, learn this.’ But I really think ... when they see it done in the same shoes that they’re wearing, it’s more, ‘Oh, well, we can do this. Well, if [she’s] doing it, then I can do it.’

New teachers, in particular, expressed appreciation for their teacher leaders and the ways they made them feel comfortable, connected, and professionally cared for. One teacher who had changed careers mid-life commented: “It’s been positive for me just because starting a new career at middle age has been quite the challenge and if I hadn’t had a couple of people that I could go to, that I could depend on, I don’t know that I’d still be sitting here.” Teachers expressed that it was the teacher leaders who built relationships with them first who were most effective, and that it was important to have “the right teacher leader” and then be able to stay with that individual for more than one year. As an example, one teacher whose teacher leader was leaving the position was observed telling him, “You are always there to help me when I don’t know what I am doing, and I appreciate the time spent invested in my practice and to help the kids and it will translate moving forward.” Another teacher said that the ongoing visits and suggestions from his teacher leader have been “amazing.”

While many teachers spoke to the direct and indirect benefits they experienced from teacher leaders, others expressed more negative views. On a programmatic level, some questioned the process by which teacher leaders were selected, with one teacher commenting: “I don’t think it’s evenly distributed. And I know there’s an application process, I do know that. But ... I think there’s some that get more opportunities than others.” In another district, one teacher bemoaned the lack of “transparency” in the selection process. In addition to some resentment over the selection process, some believed teacher leaders were only helpful in mentoring newer teachers, while others questioned their utility entirely. At several schools, teachers were unable to name the teacher leaders in their building, with one saying that “We don’t know who they are. I think some do a lot of PD and that’s how they earned their money, but it never trickles back to us.” In another school, a newer teacher said that she thought the teacher leaders were administrators rather than teachers, only learning she was wrong during the interview. Across sites, teachers who viewed the teacher leader role as a “stepping stone into administration” were less likely to utilize, or be satisfied with, their teacher leaders.

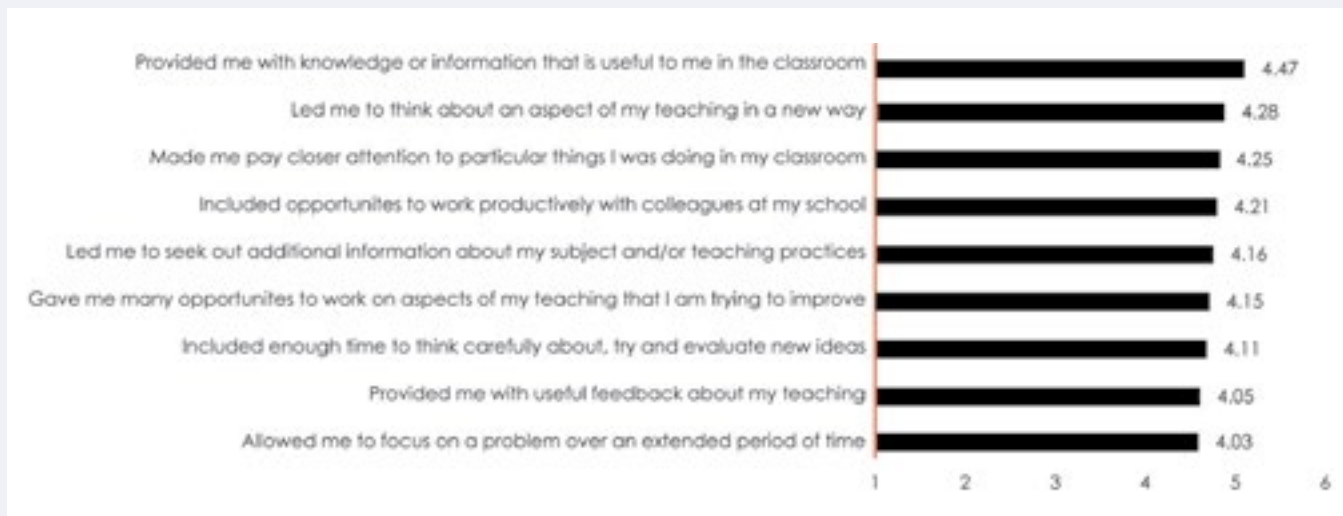
In some of the more extreme cases, teachers expressed sentiments indicating that the teacher leader programs had been structured in a way to make teachers feel that their own work was no longer valued. One teacher explained, “Everybody just wants to teach and do a good job, but they’re so overwhelmed by all this other stuff that they think is fabulous, but nobody asks us. ... They [keep] hinting we’re not doing a good job anymore.” Other critiques were softer and more constructive, such as wishing the teacher leaders had more time to do their work, which would increase their availability, or that Tls were not pulled into more administrative duties “running all over the school” and “wearing too many hats,” which reduced their time to support teachers. One teacher described it as Tls having “too many roles” and that they “shouldn’t be doing everyone else’s jobs” – particularly that of administrators. In several of the schools, teachers said they were more likely to approach a non-teacher leader peer for help than a teacher leader just based on proximity and availability. One teacher explained, “When I’m in my

room, I'm taking care of my responsibilities and not once do I sit there and think, oh, I need to go see a teacher leader. That's not on my radar." Another similarly commented, "If I can find someone who knows something, I don't necessarily go to [the teacher leader]."

On the survey, teacher reported the impacts that their teacher leader had on them. Figure 3 shows teacher responses across the four districts to survey questions about their degree of agreement that they had selected experiences with teacher leaders. Overall, teachers did report having the example experiences with teacher leadership, with all items averaging between "Somewhat Agree" and "Agree" on a six-point scale ranging from "Strongly Disagree" to "Strongly Agree."

Underneath the generally positive picture of teachers' perceptions of teacher leadership impacts, there were some important differences amongst districts. This can be seen by looking at the shading of the bars. The black bars show items where there was a significant difference in teacher responses by district, while the white bars indicate no differences in responses by teachers across districts. Overall, teachers felt most strongly in agreement with the statement that their teacher leader provided them with knowledge or information useful to them in their classroom. While teachers generally agreed with the statements that their teacher leader led them to think about aspects of their teaching in a new way ($\mu=4.28$), made them pay closer attention to particular things they were doing in their classroom ($\mu=4.25$), and provided them with useful feedback about their teaching ($\mu=4.05$), teachers in Denver had significantly higher agreement scores than teachers in the other three districts (which had similar levels of agreement).

Figure 3. Teacher reports of experiences with teacher leadership leaders (n=1,047)



Black bars signify statistically significant differences between teacher leaders in at least two of the four districts; white bars signify no statistical difference amongst districts.

Note: Reported numbers are mean responses for teacher leaders across the four districts. Survey scale: (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4), somewhat agree, (5) agree (6) strongly agree.

Teacher Leader Experiences with Teacher Leadership

Teacher leaders expressed a wide range of experiences with their respective TL programs. In terms of their roles, many TLs said that they thought their current and recent experiences in the classroom working with students helped them most in leading their colleagues. This common identification led to a deep sense of satisfaction when the results of “coaching cycles” yielded tangible positive changes for students in a teacher’s classroom. Described as “carry-over from conversations” and “acting upon next steps and new ideas,” these often small changes sustained TLs and increased their willingness to continue in their positions. One TL described his work with one teacher who was on probation and the “difficult conversations” they had, saying: “It really helped that I was in the building and I was able to identify with him ... there was a level of trust and understanding that helped those conversations.” Another TL described her ability to provide positive images, examples, and stories to other teachers experiencing the same struggles as “powerful.”

While it often took a year or more for the TL-teacher trust bond to be built, the majority of TLs across sites said that the longer they were in their role, the more productive their working collegial relationships became. To move this forward, TLs across sites spoke to the importance of learning how to differentiate supports for teachers by paying attention to different personalities, working styles, and receptivity to feedback. Having the opportunity to work with and support new teachers was particularly mentioned as a positive experience for TLs in their roles.

Many TLs spoke to a sense of camaraderie with teachers they were assigned to work with, where familiarity with students and the work of teaching made the coaching process more “authentic.” Relatedly, TLs expressed a level of job satisfaction in utilizing this familiarity to be “a really big voice for teachers” at the school and district level. This liaison component of their role was frequently mentioned across sites. As one TL described it, “I think the teachers have someone they can turn or go to, comfortably and easily, without having to bombard [the principal].” Another TL described this aspect of their position as “trying to connect the dots, not just to any person, but to the right person.” While some TLs mentioned that they would likely be supporting other teachers and working to help the school move forward even if they weren’t in a formal role, they also believed the designated time and space to do leadership work was an asset. As one TL explained, “It’s nice to be recognized and put in a position ... not that I need a title to help my colleagues, but now they know, ‘she has a designated period where I am not bothering her.’” An additional motivation for some TLs – especially where the stipend associated with the role was significant enough – was the extra money they earned.

Many TLs and their administrators also expressed the belief that being a teacher leader made the TLs better teachers, because they are in so many classrooms “seeing others do good things that they can then go implement.” One TL described this enjoyable part of his TL role as “learning from other adults in the building.” Taking a learning, rather than a know-it-all, stance was repeatedly mentioned as a strategy for working with colleagues. As one TL explained, “I don’t have all the answers ... I am not an expert in everything ... but here’s where we can look for resources.” Approaching peers with humility, respect, and as co-learners/co-experts was reported to make TLs both more successful and satisfied with their work.

However, some TLs shared pressures and anxieties related to having “difficult conversations” with their colleagues. One TL, for example, had to give feedback to a teacher regarding her differential treatment of black and brown students in her class. She explained: “And I had to be comfortable just stating the facts, and then saying, ‘Tell me about the implication of this.’ And it was hard. The first time I walked into the conversation, I was shaking. Not because I was angry, but because I was concerned about how I was going to be received.”

Additionally, at several sites the TL's coaching role was combined with other more administrative duties, which was reported to create a level of unproductive ambiguity. This tension became even more heightened in Denver during the strike, when TLs had to decide whether to cross the picket line to help run the school or join their colleagues on the line. Even in schools trying to de-emphasize the evaluative component of teacher leadership by having TLs do "push in" support with students in classrooms, teacher resistance was sometimes a negative factor. On a day-to-day basis, TLs across the sites had to navigate more "administrative duties" (e.g., participating in leadership team meetings and consulting individually with school and district administration) and maintaining trusting, working relationships with their colleagues. One TL described this dilemma as: "You want to have a candid conversation with a principal but sometimes there's that line of, I don't want to lose that trust of the teachers." Another TL commented, "I think the position is tricky because you don't want to be on either side," and still another described it as not wanting to be seen as a "spy."

While navigating the space between teachers and administration was a challenge for some, others spoke to struggles managing their own workload. As one TL expressed, "One of the reasons I did not want to come back as a teacher leader is it is quite a bit of a time sacrifice." An additional TL who chose not to return to their role said it was because she was "pulled in so many different directions" and that the work had become too hard. Often, TLs enjoyed some aspects of their work (e.g., sharing practices with teachers), but not others (e.g., presenting to the staff on PD days). In several cases, TLs frequently questioned the quality of their own work and whether they were really having an impact. These self-doubts were exacerbated when teachers did not show up to non-mandated professional development sessions they had organized. Across sites, several TLs who were on the fence about returning to their roles were only convinced to give it another year by the persistent imploring of school or district administrators.

Finally, an additional concern for some TLs was how they were evaluated themselves. With many having both teaching and leadership responsibilities, some were concerned about multiple and conflicting evaluations. In one case, a teacher leader mentioned that a newly planned, more intensive evaluation of the leadership component of his work was one reason he did not want to return to the job next year.

Administrator Experiences with Teacher Leadership

Across sites, administrators appreciated the way that TLs connected with teachers around mutual respect for the difficult work of teaching and trying to improve as teachers. One assistant principal commented, "I think the biggest bang for the buck is the peer coaching model." Similarly, another principal explained that the benefits of peer coaching were rooted in the idea that "the further you get away from a classroom, I think you lose some validity in the eyes of your staff..." Teacher leaders, on the other hand, provided greater comfort and approachability for their teachers. Several principals appreciated the additional layer of teacher advocacy the TLs provided in their building, expressing gratitude that "a teacher is going to them before they bring it to us, a lot of times."

Administrators also believed that TLs helped make schoolwide change efforts – like making classrooms more student-centered or technology-savvy – more viable with "more fingers that are getting out into the entire school staff as opposed to where it's just coming from administrators." Many principals would consult with TLs related to the viability of a new initiative before rolling it out to the larger staff. Some also believed that TLs opened up more time for principals to work on other obligations, knowing "the instruction piece is being taken care of" and that someone "had the pulse" of what was going on in classrooms. As one administrator put it, principals appreciated the value of TLs because they knew that "somebody has to do the PD [and teacher development] – and if not the TLs, it's going to be them." In these ways, TLs changed the emphases of administrators' effort by acting as additional support and resources for classroom teachers.

In addition to utilizing TLs for more general staff support, many principals would encourage new or struggling teachers to seek the guidance of TLs, particularly before or after an observation. While sometimes this could lead to discomfort, overall principals reported these “strong suggestions to work with TLs” was well-received by teachers. Nevertheless, managing relationships and potential teacher perceptions of TLs as being a “mole,” “tattle-tale,” or a “boss” was an ongoing challenge for administrators.

While mainly focusing TLs on non-managerial support for teachers, several administrators also saw it as their role to give TLs experience with administrative responsibilities, in case “they decide to make that next step to being an administrator.” Indeed, in all sites, district and school administrators saw the TL programs as a way to build leadership capacity within the district, with some even “handpicking” TLs for administrative positions when they opened up. One district administrator described it as “lengthening the runway to the principalship.” In one school, a principal intentionally positioned his teachers in more administrative roles, so he could work on more broad schoolwide issues. In other cases where TL roles were less attractive, administrators had to encourage teacher leaders to apply for positions in the first place, and “tell them to put themselves out there.”

While often perceived to be a significant benefit to their schools, teacher leadership sometimes presented challenges to school administrators. In one school, both the principal and assistant principal expressed concerns that coaching activities were not being documented correctly, and perhaps not even being done correctly. With similar concerns at another school, the principal took additional steps to make sure that deep coaching was occurring, requiring TLs to send him videos of coaching sessions so he could provide feedback. An additional challenge for administrators was when TLs had to coach outside their content area or grade level, requiring them to “prove themselves to the teacher before the teacher was open.” Messaging was also important, and administrators acknowledged that some TL struggles were due to lack of clarity or poor communication about the TL roles and responsibilities from either district or school leadership.

An additional and related tension, in some sites, was distribution of resources. For example, in one district administrators grappled with the choice between having instructional coaches versus assistant principals in the elementary schools. When the district moved towards the IC/TL model, some administrators recoiled. At the district level, administrators in charge of facilitating the TL programs mentioned that they were constantly fighting for the program’s survival amidst tight budgets. This was a particularly challenging task because of the reality that teacher leadership benefits at the program level are “very hard to quantify.” One district TL leader described it as “hard to gauge by data ... walking into classrooms and seeing the difference in confidence, presentation, the way they instruct ... it’s hard to put a number to that.”

Sometimes, district administrators also needed to spend time educating principals about distributed teacher-leader school models. This was confirmed by one principal, who admitted that when he started his work within the district “it was new to me ... I didn’t even know what that term [teacher leadership] meant when I got here.” One district administrator explained that part of their role was to make it clear that teacher leadership is here to stay and that principals need to use TLs to help their schools. Across all sites, district TL point people collected data each year on the TL program, and made adjustments the next year based on what they learned needed to be improved. The intense and ongoing advocacy work of district officials in charge of teacher leadership was wearing on some, with several considering whether the TL programs had “run their course.”

The Mixing of Support and Evaluation

Most districts view teacher leadership and coaching as a way to improve teacher practice, distinct from teacher evaluation. In one of the study sites, DPS, teacher leaders participated in teacher evaluation as part of their role. In this section of the report we describe school actors' views of the mixing of support and evaluation in DPS and the other study sites.

The survey results indicated that teachers and teacher leaders in DPS were more sanguine about the blending of coaching and evaluation than were educators in the districts where this was not a regular practice. On the survey, we asked three questions of teacher leaders in all four sites about the mixing of teacher leadership and evaluation. The results are shown in Table 4. The first question asked whether teacher leaders should play a role in formal teacher evaluation. Both teachers and teacher leaders in DPS were significantly more likely to agree with this statement than were educators in the other three districts, where only a third or less of the respondents agreed. Interestingly, teacher leaders had lower levels of agreement with this question than did teachers in all four districts.

The second question shows a similar pattern. In EB, LPS, and RCS, 70-90% of teachers and teacher leaders agreed that teacher leaders should not be part of teacher evaluation because it harms professional relationships. By contrast, far fewer (50%) DPS teachers and teacher leaders (31%) agreed with this statement.

Finally, both teachers (66%) and teacher leaders (84%) in DPS were significantly more in agreement with the statement that teacher leaders should conduct teacher evaluations because they really understand teaching. By contrast, a third or fewer of the educators in the other districts agreed with this statement.

Table 4. Teacher and Teacher Leader Responses to Survey Questions about Mixing Teacher Leadership and Evaluation

Question	Teacher Percent Agreement (n=1029)				Teacher Leader Percent Agreement (n=174)			
	DPS	EB	LPS	RCS	DPS	EB	LPS	RCS
Teacher leaders should play a role in formal teacher evaluation.	64%	34%	24%	30%	44%	18%	6%	33%
Teacher leaders should not be part of teacher evaluations because it harms teacher/teacher leader relationships.	50%	72%	80%	77%	31%	91%	81%	76%
Teacher leaders should conduct teacher evaluations because they really understand teaching.	66%	37%	30%	36%	84%	13%	8%	36%

Qualitative data reinforced the pattern of the survey findings that educators in DPS were generally supportive of the district policy of involving TLs in formal evaluation. Teachers supported the reform in that they felt that TLs had a stronger understanding of teachers' classroom contexts, student needs, and content areas than school administrators. As one DPS teacher explained, "[TLs] can relate to every single challenge and success that I'm going through."

Despite general support for the policy, educators' experiences with the integration of evaluation and

coaching in DPS varied. Interviews indicated that while TLs and administrators described the TL role as focused on instructional coaching rather than evaluation, teachers did not consistently experience it this way. Three key patterns emerged that may help explain the variation in teachers' experiences.

First, teachers' responses depended on their relationship with their teacher leader. Across schools, teachers' perceptions of the integration of coaching and evaluation depended greatly on the specific individual who served as their coach. For instance, one teacher explained that her experience varied by year depending on the coach to which she was assigned. Teachers frequently referred to trust and depth of connection with their TL as key to whether they felt supported. Teachers viewed the specific pairing of teacher and TL as critical for establishing the appropriate relationship to engage in work focused on professional growth.

Second, educators' impressions of the mixing of evaluation and support depended on both school and leadership culture. Perceptions of a support- or accountability-oriented environment were related to school and leadership culture and, more specifically, to the administrator's messaging and manner of TL model implementation. Despite a stated purpose of "support" from administrators and TLs, teachers in the DPS middle school viewed their work with TLs as evaluation-focused. In this school, teachers described decision-making as "top-down"— administrators and TLs determined instructional priorities and communicated these to teachers via observations and coaching. For some teachers, a perception of coaching as one-sided elevated their sense of the program as punitive in nature. In contrast, the elementary school de-emphasized the evaluative component of TL roles — for instance by having TLs spend time in teachers' classrooms working with students. Teachers in this school were generally more comfortable with their TLs and felt a genuine sense of support for their professional growth. Thus, intentional efforts to de-emphasize evaluation — not just through messaging, but also through enactment of the TL role — affected teachers' perceptions of TL support.

Third, perspectives varied depending on TL responsibilities. TLs had greater administrative duties in one school than the other, which affected the extent to which teachers viewed TLs as administrators versus peers. The district intentionally underspecified the TL role in its program design to provide principals flexibility in how they leveraged TLs in their schools. TLs' heavy involvement with non-coaching leadership duties in one school gave teachers the impression that TLs are part of the administrative team, rather than teacher-peers. One teacher described the TL role: "You're seen as an extension of administration more than [as] a coworker to the people." This perception of TLs as administrators affected the level of trust some teachers felt toward their TLs.

Collectively, these findings point to a challenge the district faced in finding the appropriate balance between evaluation and coaching. In addition, attention to both the specific relational dynamics in teacher-TL dyads, as well as the broader organizational context within the school, was key to determining the best balance between TL responsibilities. The search for this balance continued at both the school and district level.

Finally, while no other district in our research employed TLs as part of their teacher evaluation system, several teacher leaders at other sites occasionally shared their views on mixing coaching and evaluation. For the most part, they talked about how their particular TL model would never work if formal evaluations were included. In one district, TLs drew a clear delineation between themselves and evaluators, with one saying "We're not the enforcers. We're the messengers." A TL in another district emphasized, "I don't want any part of [evaluating teachers]," adding that the "clear divide" between TLs providing support and administrators conducting evaluations was one of the strengths of their TL program. Another TL similarly said that clearly messaging "I am not your boss" was a key to her success in supporting teachers. One TL went as far as to say that the thought of teachers formally evaluating other teachers is "insane." Overall, teacher leaders in non-DPS districts believed that if they had evaluative authority over the teachers they worked with, these teachers would not collaborate with them in growth-oriented, authentic ways.

Summary of Teacher Leadership Experiences

Overall, experiences of educators with teacher leader programs across these four districts were mixed. Administrators were the most enthusiastic, with the majority praising the ways their TLs improved instruction in their building and provided an additional layer between teachers and themselves, thereby decreasing their own workload. One area where principals were split was on viewing TL roles as an initial step towards administration, with some seeing the TL program as building leadership capacity within their teaching core and others as a training ground for administrative roles. Common struggles for administrators, across sites, included documenting both the process and impacts of their programs and, relatedly, securing resources to maintain the roles. For district-level administrators, the continual advocacy work needed to maintain the programs was often exhausting.

Teacher leaders themselves received deep satisfaction in providing support to their colleagues, while also facing a number of challenges such as resistant colleagues and being over-extended by school- and district-level administration. Across sites, the most positive experiences involved TLs forming extended working relationships with their teaching peers, identifying with their colleagues as teachers to provide individualized and authentic professional development, and amplifying teacher voice with administration. Many TLs also spoke to the opportunities the role provided them to be continual learners, which they believed also made them better teachers. Despite these benefits, TLs at several sites had also become worn down by time pressures, questions about the utility of their positions, and, in some cases, low levels of compensation.

Teacher experiences were the most bifurcated. On one end, some teachers enthusiastically praised the structured supports available to them within their buildings and liked that support came from individuals who they could identify with as teachers, and who could help them feel comfortable getting help. In cases where the programs had clearly delineated the area of expertise of the TL, including the mentoring of new teachers, teachers spoke more favorably of the TL program. At the same time, a notable number of teachers across sites were skeptical of the utility of teacher leaders' work. This was due to deep skepticism over whether the role really existed to help teachers and, in some cases, perceived unfairness about how teachers became TLs in the first place.

The Influence of Teacher Leadership on Schools and Districts

Our fourth research question asked: What was the influence of teacher leadership on schools and districts? In this section we use data from our site-based fieldwork to examine how educators in the four districts viewed the impacts of teacher leadership on their schools, their districts, and district leadership capacity.

Impact on Schools

In each of the four districts, teacher leadership programs were designed as an organizational investment, intended to create systemic changes throughout the school and district, not just individual teachers' practices. Each of the four districts had specific targets for school impact. Robertson hoped its schools would gain coherence across literacy practices; Lincoln was supporting districtwide technology implementation as well as new teacher induction; East Brunswick focused on improving instructional support for teachers across schools; and Denver aimed to align practice to its districtwide instructional expectations. Across the districts, teacher leaders' supports were generally seen as a contrast from the traditional support teachers received from administrators. As one teacher leader commented, "It's another teacher [who] understands the role of a teacher in the same school at the same moment. Because

administrators, sometimes they just are into whatever they have to be doing, and they forget that we are teachers, or they were teachers.” Across all four districts, educators’ descriptions of the impact on schools identified one impact that far overshadowed all of these intended outcomes. Teachers, teacher leaders, and school administrators alike described the transformative impact of teacher leadership on school professional culture by improving collaboration, coherence, and communication.

Improvements in Collaboration

Teachers valued the increased supports their teacher leadership program brought, enabling them to see others’ practices and share their own. Teacher leaders had an impact on school professional culture by facilitating the cultural and structural supports needed for collaboration.

Several teachers described the culture change in their schools as a cycle in which the more teachers collaborated, the more they wanted to collaborate with each other. It was a cycle, they said, that began with teacher leaders. One teacher explained,

I would say it just gets the foot in the door to get it started, so on the one hand it might be that... once you are a teacher leader you're more inclined to be comfortable to ask to go in another room and you're definitely more inclined to have people come see what you're doing, and it leads over time to kind of that opportunity to not necessarily streamline things that just make us all do the same thing, but make us start to realize like, 'Oh, this is what's happening in this subject, and that's similar to my subject in this way, so we should meet and discuss how we can make a vocabulary this summer... or maybe make something somewhat easier in this kid's life.'

Working together and understanding that colleagues can count on each other also had an impact on culture and teacher morale. One teacher explained how this helps: “Just the fact that they’re willing to step up and help out should help us, period. But then just helping with morale also seeing those people who are willing to go above and beyond.”

Principals agreed that teacher leadership increased collaboration, which they saw as a valued schoolwide condition for student learning. As one principal explained:

I think that what teacher leadership does for a building as a whole is that it changes completely the climate and culture, and it becomes more of a collaborative space. You know, I feel like a lot of times teachers spend ... you know, six hours, they're in a room by themselves, so it's not always easy to kind of collaborate with your team, even if you have common planning time. But I feel like, in building a teacher leadership model, people feel more connected and they work together, and when that happens, that obviously has a direct impact on student learning.

One aspect of collaboration both teachers and principals valued was the inclusion of teachers in schoolwide decision making. In East Brunswick, Lincoln, and Robertson, teachers had a voice in decisions such as redesigning the school schedule, developing a literacy intervention system, and the focus and method of professional learning. A teacher leader explained why collaboration with teachers around such decisions is essential: “Being that we know our students best, and we’re able to spot certain things

that we see ongoing trends with our students, or [with] the culture in our school, then we can focus specifically on that,” she said.

Increases in School Coherence

When schoolwide implementation of initiatives is mandated from above, it does not always gain traction. By contrast, several educators in these districts saw teacher leadership as a key component of a coherent schoolwide effort. Sharing that occurs through collaboration, over time, can logically lead to teachers developing shared practices and shared language. In the sites, teachers described collaborating to create new grade-level instructional routines (e.g. digital notebooks), teacher leaders described greater consistency in use of instructional practices (e.g. running records in literacy instruction), and principals described schoolwide alignment to professional learning priorities (e.g. state-sponsored curriculum).

One way that teacher leadership may support greater coherence is the way in which it encourages “ownership” or “buy-in,” two common terms heard in our interviews and focus groups. One teacher leader recounted a time teachers came to her and asked, “This is what it says in the book, but what do you think if we did it this way instead? Do you think that would be successful, not successful? How could we do it differently?” The teacher leader took this opportunity to move toward a coordinated effort: “We sat down together [to] talk about the pros and cons and [said,] ‘Let’s go for it. Let’s try it this way.’” Not only did this effort lead to “a running document districtwide” to support a coordinated effort and continuous learning about the change, but she noted, “I think that made a big difference and I think it brought me closer to those teachers, where they feel they can lean on me more.”

Another way in which teacher leadership was seen to influence schoolwide coherence was through the role teacher leaders play in cross-pollinating good ideas. Teacher leaders picked up good ideas from teachers that they shared with others, and recommended cross-classroom observations where they saw teachers could help each other. One teacher appreciated the encouragement she received to share strong aspects of her practice. She noted, “That’s given ownership to a lot of teachers, including new teachers.” She also had reflections on why this was important:

We are a social group, but an isolated group because we are in our classroom. It’s not like an office building where you have cubicles, and you can get up and go to the bathroom and get a cup of coffee and shoot the shit with everybody. We are an isolated [environment]... You’re like, these are my four walls. That allowed for us to kind of see [beyond those walls].

While many administrators like to think they can make things happen by mandate, the principals we interviewed seemed to understand the importance of ownership for true coherence, and teacher leaders’ unique advantage in earning that ownership. One principal reflected, “When you’re an administrator, you can get compliance, but you don’t always get belief. But if you’re a colleague working alongside [teachers] and really having that good conversation, that’s where you change belief systems and you make changes that are going to be lasting rather than just compliance with initiatives,” he explained.

Another administrator had a similar observation about professional development and named the

advantage that teacher leaders have over other professional learning leaders for changing practice:

We're fortunate that our teacher leaders are in the building, leading the PD's to their peers. So, typically you're going and you're listening to someone that you do not know. And you're thinking, really, well what do they know? How long were they in the classroom? Really, did they ever try this? You know, there's so many variables there, but when they know that it's coming from their peer, and their peer talks specifically about what they do... I think that there's more buying and willingness to try, because they trust their teacher leaders more.

Shared language and schoolwide coherent practice were also valued with regard to leaders' support. Principals, teacher leaders, and others needed to be on the same page and communicate a coherent message. One teacher recalled the lack of coherence from before the teacher leader program:

Honestly I think [teachers] were getting feedback from us, from a peer observer, from admin and it was all different feedback and they were trying to act on all of that. But my hope is that if I can go in and see how [admin] had said that they're working on them, I can also go and work on them. It's not twenty different things anymore. They're all going to work on one thing and will improve that.

Teachers in another district had a similar observation about the need for “synchronization.” It is important, she explained, that “everyone is on the same page, getting the same information, the same answers, and nothing left up for interpretation, rather than, ‘Here’s a half set of directions and everybody just go fifty different ways.’”

Enhancing Schoolwide Communication

Coherence supported, and was supported by, communication. Teachers and teacher leaders alike recognized the impact teacher leaders were having on school culture by creating and reinforcing new norms and structures for communication.

Teacher leaders helped to transform norms for school communication by creating opportunities for teachers to interact and by facilitating conversations that helped teachers become comfortable talking about teaching and learning with each other. Over time it became a -school norm. One principal reflected: “That’s a huge success when I see them kind of reaching out to their colleagues and talking. Even after these classroom visits, we did... you can just hear the talk around the building. Like, you see teachers; they’re asking each other more about like things that had gone on in the rooms, and complimenting each other, and it opens a dialogue.

Communication regularly happens in schools among like-minded individuals who are inclined to connect. Yet in these schools, teachers described a schoolwide culture of communication, involving more than just the usual suspects on the faculty. One teacher explained, “I feel like... it makes those people that might not want to ask questions go up to that teacher leader and ask questions that they might have been afraid to.” In this way, teacher leaders acted as conduits to facilitate communication across faculty members.

Additionally, while communication as a cultural norm can often be inhibited by the structure of time and

work space in the school day, teacher leaders helped to change these norms. Denver teacher leaders had regularly scheduled meetings with teachers. Lincoln teachers knew that support was always available on Tech Tuesdays. Robertson and East Brunswick teachers appreciated time within school and across schools to meet with colleagues. One teacher explained that teacher leadership was “encouraging people to go take a look and see what other people are doing and see what you like about what they are doing. Ask questions about what they are doing, have conversation and kind of put you out of your comfort level a little bit.”

Another way in which teacher leader roles were having an impact on schools’ communication culture was by establishing a new line of communication to school administration. In East Brunswick, Lincoln, and Robertson, teacher leaders were brokers for communication. One teacher described how this role worked to benefit the school:

They hear teachers saying, ‘We need to know more about this.’ And where it may not be their role to share that information, they can discreetly say, ‘Hey, teachers are wanting to more know about this.’ Not divulging anything that’s said in confidence but to really help grow the learning community, so to speak. And so I see that kind of relationship, it’s just a two way partnership because we want what’s best for the students ultimately.

In teacher leaders, teachers sought “someone I can trust” who will listen without judging, “someone who can advocate” from a position of greater influence, or “someone who is knowledgeable” to vet an idea or question and push back as needed. In other cases, teachers wanted a forum to develop an idea and/or get consensus from a group before approaching the principal. Why is this necessary? One teacher explained it this way, “I try to figure [issues] out on my own, or get with someone else like my teacher leader before I go to [administration]. I want to seem as confident and knowledgeable as possible.” For some trust was a significant issue, where they didn’t want lack of confidence to impact their evaluations. Others saw it as a matter of efficiency, such as the teacher who explained, “[The principal] can’t listen to the whole school’s opinion at one time. Whereas we all come together, give them our opinions, and it’s a lot easier to listen to five [teacher leaders].”

Some took comfort in what this role represented: someone who supports them and has their back. “I think it creates more of a community... and a positive culture among all the teachers, because we have someone to go to other than just going straight to administration. There are people in the building that you can trust that you can go to for help, or if you need something.”

Collaboration, coherence, and communication were described as mutually reinforcing influences that transformed professional culture. Teacher leaders, sitting between teachers and administrators, often acted as the connectors. They facilitated collaboration by working with teachers and connecting teachers to other teachers. They encouraged coherence by working across teachers from a unified perspective and encouraging teacher buy-in and ownership of reform approaches. They facilitated interactions amongst teachers and with administrators by creating and reinforcing norms for communication.

Impact on Districts

Teachers, teacher leaders, and administrators described several ways in which teacher leaders were having an impact on the district’s goals and systems. They were an influence on district priorities, they were a force for accelerating networking throughout the district, and they were an important, even if inadvertent, factor in the district’s leadership pipeline.

Reinforcing District Priorities

Teacher leaders across all four districts were expected to help advance district priorities. East Brunswick teacher leaders described district meetings in which teacher leaders would come “together as a group making sure that we’re examining our practice together, making sure that we’re targeting our work on our work.... So that the agendas are focused on the work of the district.”

A Lincoln teacher initially saw this as a tension, as she wasn’t sure she agreed with those priorities. “Not everything that a teacher leader has to help teachers implement is liked by the teacher leader,” she said. “You could be asked to help implement this curriculum and not like it. At first, I had questions at first. I really did, and I had my doubts at first, but we had to learn to trust the process of it.” She added that she eventually grew to find herself on board with the change, as she began to witness the impact.

Lincoln and Robertson TLs had a bit more room to “manage up.” One teacher recounted a grass roots effort among teacher leaders to create greater vertical math alignment across the middle and high school. She said, “This is coming from us, not the central office, you know? Not our principals and administrators. It’s the teachers getting together and saying, ‘Hey, we need to make a change in our program. What can we do? So we’re planning on starting from the grass roots. The teachers are just going to get together and try to make that shift.’” Her colleague agreed: “When we see a problem now, we’re more assertive about looking for a solution and working and planning with other people, not just sitting back.”

Robertson teacher leaders, for their part, assumed responsibility for modelling the district’s core value around collaboration and have played a key role in transforming adult learning in the district. One administrator testified, “It’s more a shift in the culture of the district, and it affects some very key principles of operation like communication, and collaboration, accountability, and I think it’s raised the level of all of those things, the expectations, because it’s a continuous focus on them. It’s expected.”

In Denver, teacher leaders’ influence on district priorities had become such an embedded part of district systems that the roles had become quite “normalized” by the district. A Denver administrator described it this way:

They’ve incorporated it into the way they see the world and they plan for things. So, our curriculum and instruction team always has, now, specific offerings for teacher leaders, which is a unique and different need. Then a curriculum training for principals versus a curriculum training for teachers. Like they recognize this liminal space now and then plan for it accordingly. We collect data and especially like HR data have been sort of just normalized to teacher leadership.

These examples from across the districts show how teacher leadership became integrated into both the routines and systems of the districts, thereby promoting deeper and more prolonged influence.

Improving District Networks

Another district-level impact of teacher leadership was through deepening and extending networks. Traditionally, teachers do not have a reason or opportunity to connect with educators beyond their schools or the district, but teacher leaders in these districts found themselves with opportunities for

cross-school visits, participate in trainings together, and to collaborate with partners beyond the school. And, when they did so, they added value to the district.

When TLs connect at district meetings, a district leader explained, “They’re opening up and talking about things we do here versus how they do it there. So as a district, we’re trying to accomplish the same thing. One big district working for one goal, altogether. So, I think that’s what our teacher leaders get together and they do. They work together for the best of our system.” Recognizing the strategic advantage of teacher leaders for networking and sharing knowledge this way, Lincoln invested strategically in these teacher leaders: “They spend a lot of money to train us in certain areas, and then we’re expected, that’s part of my role, to come back and share it out so we can better [support] all the math teachers, and the ELA,” said a teacher leader.

Teacher leaders’ networking added real benefit to Lincoln. Teacher leaders were collaborating on high-leverage districtwide projects, such as vertical curriculum alignment and cross-school content PLCs. In fact, a teacher from Lincoln attributed her district’s high math scores in part to her Math PLC.

An argument could be made that teachers could collaborate in these ways without formal teacher leader roles. Two teachers in our focus group explained why that is not realistic:

Here’s the thing. When we started teacher leadership six years ago, I had been teaching school 21 years. So, sure, I could’ve collaborated with the other seventh grade ELA teachers in Lincoln County. But the thing is, we weren’t. We get so wrapped up in our work. Between that, and then, everybody’s got their own life, and we didn’t make time. That’s some of it. We just didn’t make time. Now [with teacher leadership] we’re forced to make time.

Building District Leadership Capacity

A third, valued impact of teacher leadership programs on these districts was expanding leadership capacity. The combination of training and experience they received as a result of their teacher leadership role gave teachers a boost in career development that many found rewarding, and that had implications for the district’s leadership pipeline.

One implication was that it provided additional leadership capacity for school and district priorities. As mentioned above, TLs in Robertson brought capacity that transformed the very definition of adult learning in the district. Principals often noted with appreciation the many ways teacher leaders’ leadership capacity helped to lighten their loads. TLs often supported teachers in the middle and high ends of performance, allowing principals more time to support the most struggling teachers. They commonly planned and facilitated professional learning in lieu of the principal and their roles as communication liaisons felt to some principals as an efficient way to triage staff concerns.

Teacher leadership also served as a leadership pipeline for school administrative roles. When job vacancies opened up, school and district leaders often saw teacher leaders as well-positioned and well-prepared to step into these roles. One Denver Principal indicated that all of his senior team leads had aspirations of pursuing administration. There were also a few cases where TLs actually had an inverse impact on some teachers’ satisfaction and retention. Teacher leader roles caused some teachers to aspire for new rungs on the career ladder, only to find there were none. Some teachers changed schools or left the district in pursuit of the career advancement opportunities they desired.

Of course, not all teacher leaders desired or pursued that path. In fact, there is evidence that some teacher leaders agreed to take on teacher leader roles as a way to test the waters of leadership. One teacher explained, “It’s kind of a nice way to figure out, ‘Do I want to go into admin or do I want to stay in the classroom?’ So if that’s something you’re interested in, I think that model can be really helpful to kind of let you try it out without totally leaving and without pursuing a degree and stuff like that. Kind of let you know if you’re ready for that.” Indeed, some teachers rotate into teacher leader roles and back into the classroom, as they learned what teacher leadership entailed.

Teacher Reports of Teacher Leader Influence and Changes in Their Instruction

In the final section of this report, we turn to the fifth research question: What was the impact of teacher leadership on teacher practices and changes in instruction? We investigated this question with two sets of analyses. In the first set of analyses, we use a quasi-experimental research design to examine the impacts of teacher leadership in the four districts in our sample compared to the three other districts that we recruited to serve as comparison districts. Two of the comparison districts were in New Jersey, while one comparison district was in Tennessee. We had no comparison district for DPS. The TN district was recruited by communicating with districts who were in the 2018-19 cohort of TLN districts, and one agreed to participate. In New Jersey, we used professional contacts to identify demographically comparable districts who might be interested in participating.

Table 5 shows, in descending order, the average time TLs in each district report spending on teacher leadership activities. As shown in Table 6, TLs in DPS and comparison district 1 reported spending more than 50% of their time on teacher leader activities, with TLs in comparison district 1 having a slightly greater spread around the average. In comparison district 2, EBSD, RPS and comparison district 3 TLs reported spending 30-40% of their time on teacher leadership. TLs in LPS reported spending the smallest percentage of their time – only 20% on average – on teacher leadership. These results suggest that teacher leadership or coaching is a common phenomenon across districts and that there is little difference in the extent of teacher leadership across our focal and comparison districts.

Table 6. Percent of time TL report on teacher leadership activities by district

District	State	TLs (re-responding to survey)	Schools	TL/ School Ratio	TL reports of average percent of time spent on TL (standard deviation)
DPS	Colorado	36	12	3.0	55.78 (22.84)
Comparison 1	New Jersey	20	4	5.0	50.80 (30.08)
Comparison 2	Tennessee	40	10	4.0	38.18 (33.85)
EBSD	New Jersey	97	11	8.8	37.73 (28.41)
RPS	Tennessee	64	15	4.3	34.93 (28.05)
Comparison 3	New Jersey	36	3	12.0	30.90 (29.61)
LPS	Tennessee	37	7	5.3	20.46 (7.86)

Differences in Perceived Impact and Reported Change in Teaching

To assess the impacts of teacher leadership on teachers in the four districts relative to the comparison districts, we used the survey data and developed two three-level models, with teachers nested within schools nested within districts. In the first model, we used teachers' perceptions of their TL/coach's influence as the outcome, or dependent variable. In the second model, we used teacher reported change in instruction as the dependent variable. Each model also contained a set of predictors, most importantly, a dummy variable to represent whether teachers were in one of the four focus (i.e. treatment) districts or in one of the three comparison districts. Other predictors included teacher characteristics (gender, ethnicity, education levels, grade, subject, perceptions of school culture), school characteristics (school level, school size, percentage free/reduced lunch, percent minority) and a series of binary variables to represent each of the districts.

The results of these first two models are shown as model 1 and model 2 in Table 6. Most notably, as was foreshadowed by the similarity of TL efforts in the comparison districts, there is little statistical difference between the treatment and control districts on either teacher reports of change in instruction (model 1) or teacher reports of TL influence (model 2). In fact, both treatment coefficients are negative, although only in the second model are the differences between treatment and control even marginally significant. This indicates that there is essentially no difference in teacher impacts between the districts of focus and the comparison districts, after controlling for school and district covariates.

In model 1, there are several additional points of interest that are positively and significantly associated with teachers' reports of change in instruction. First, teacher reports of the influence of their teacher leaders is significantly associated with changes in instruction; every one unit increase in teacher reports of their teacher leaders' influence (on a six point scale) was associated with a .25 unit increase in teacher reports of change in instruction (which were also on a six point scale). Interestingly, more experienced teachers tended to report less change of instruction (model 1) and less teacher leader influence (model 2), which may not be surprising since more experienced teachers may have more established instructional practices.

Table 6. Models Predicting Teacher Reports of Change in Instruction and Teacher Leader Influence

Teacher Experience Variable	Quasi-Experiment		Natural Variation	
	Model 1 Predicting Teacher Reports of Change in Instruction	Model 2 Predicting Teacher Leader Influence	Model 3 Predicting Teacher Reports of Change in Instruction	Model 4 Predicting Teacher Leader Influence
Treatment	-.28 (.23)	-.37~ (.19)	NA	NA
Teacher Leader Influence	.25*** (.04)	NA	.26*** (.05)	NA
Frequency of teacher-TL group professional development	-.01** (.001)	-.007* (.003)	-.012** (.005)	-.003 (.003)
Frequency of teacher-TL planning	NA	NA	NA	.16*** (.04)
Frequency of teacher-TL observation- feedback	NA	NA	NA	.07~ (.04)
Frequency of teacher-TL data use	NA	NA	NA	.03 (.03)

Teacher perception of school culture: Reflective Dialogue	.21*** (.06)	.35*** (.04)	.22*** (.07)	.17*** (.04)
Teacher perception of school culture: Influence	.12** (.05)	.27*** (.03)	.07 (.06)	.12*** (.03)
Teacher perception of school culture: Trust	-.08~ (.05)	.18*** (.03)	-.08 (.06)	.10** (.03)
Model includes controls for teacher gender, ethnicity, education levels, grade, subject.	Yes	Yes	Yes	Yes
Model includes controls for school level variables including school level, school size, percentage free/reduced lunch, percent minority.	Yes	Yes	Yes	Yes
Model includes controls for district.	Yes	Yes	Yes	Yes
Intercept	2.10*** (.35)	1.83*** (.25)	1.62** (.396)	.89*** (.22)

~ p ≤ .10 * p ≤ .05 ** p ≤ .01 *** p ≤ .001

Additionally, there were three school culture variables that we included in the models: (1) teacher reports of reflective dialogue with their peers; (2) teacher reports of influence on school practices, and; (3) teacher reports of trust in their schools. Reflective dialogue and teacher influence were both significantly and positively associated with both teacher reports of changes in instruction and teacher reports of teacher leader influence. In other words, positive teacher views of reflective dialogue in their schools and positive teacher views of educator influence in their schools were both associated with higher levels of instructional change and reports of teacher leader influence.

The picture of teacher trust was a bit more complicated. Teacher trust was negatively (but only marginally significant at the .10 level) associated with teacher reports of change in instruction, but positively associated with teacher reports of the influence of their teacher leader(s). It is difficult to hypothesize why teacher trust would be negatively associated with teacher reports of instructional change, and this finding was not replicated in other models, so we interpret this negative and marginally significant finding in model 1 as an anomaly.

Models 3 and 4 include just the four districts that are the focus of the study and investigate the relationship between teacher experiences and the two teacher reported outcomes, change in practice and teacher leader influence. These models include the same covariates as do the first two models.

The main finding from model 3 is that teacher reports of the influence of their teacher leader is positively and significantly associated with teacher reports of the changes in their instruction. As in previous models, teacher experience is negatively associated with teacher reports of change in instruction. Of the school culture variables, teacher perceptions of reflective dialogue in their schools is positively and significantly associated with teacher reports of change in their instruction.

Model 4 digs more deeply into the finding from model 3 and asks what areas of teacher leader activity are related to teacher reports of their teacher leaders' influence. This model includes four aspects of the frequency of teacher leaders' work with teachers: (1) class observations and feedback; (2) data use (including both test data and student work); (3) lesson planning, and; (4) group professional development (including professional development and book and article discussions). Because these aspects of TL work

are all on the same six-point frequency scale (ranging from never or once to daily or almost daily), they are comparable to each other.

The results from model 4 show that teachers felt that group professional development and lesson planning with their teacher leader were the most influential teacher leader activities. Teacher leader frequency of classroom observations and feedback with teacher was also associated with teacher perceptions of their teacher leaders influence, although the magnitude of this effect was only about half the size as the effects of group professional development and lesson planning. Interestingly, teacher leader work with teachers on data was not associated with teacher reports of the influence of their teacher leader.

■ 5. Conclusion

The goal of this wide-ranging mixed-methods study was to examine the influence of promising teacher leadership programs on teachers, teacher leaders, schools, and districts. A central criterion used to select the programs was their emphasis on instructional improvement via teacher leaders work with teachers on their teaching practices.

Despite this commonality, we found many differences in the ways in which the programs organized their teacher leadership initiatives, including their construction of the roles of teacher leaders. All districts decomposed the responsibilities of teacher leaders into subject specialty and/or particular roles, like technology coaching or data coaching. In all the district's teacher leaders provided professional development for teachers, both collectively and in more individualized coaching sessions. Major coaching activities included facilitating conversations, providing feedback sessions, and other activities designed to provide ongoing and often-individualized support for teachers. Coaching was more structured and formal in some of the some of the districts, which was an outgrowth of both the program design and the resources that districts had to release teacher leaders from some or all of their teaching responsibilities.

Beyond work with teachers, teacher leaders both formally and informally worked to connect ideas and people from across the system, including state, district and school administrators, as well as teachers. The role of teacher leaders in school networks was exemplified by the central places that teacher leaders had in the social networks that we examined in the program schools. Our fieldwork showed numerous examples of increased communication, collaboration, and coherence in both the schools and districts with formal teacher leader programs.

Collectively, there were also several notable impacts of the programs, including positive influences on both school and district culture and teaching practices. School and district culture were enhanced where teacher leaders served as liaisons between school/district leadership and the teachers. In traditionally flat organizations where there are few communication opportunities between teachers and school and district leaders, teacher leaders played an important role. As communication links, teacher leadership encouraged a better flow of information up and down the school systems.

Another important impact of the programs was the ways that teacher leaders worked with teachers in a range of ways to support instruction. While we found no differences in teacher leader impacts between the four districts and a set of comparison districts, this may have been due to the prevalence of teacher leadership in the comparison districts as well. When we examined the influence of teacher leadership within the four districts, we found that the influence of teacher leadership was positively associated with

teacher reports of change in their practice. In particular, our analyses showed that small group professional development and instructional planning were the TL activities significantly associated with teacher reports of TL impacts and changes in instruction.

This close examination of a diverse set of teacher leadership programs points out many of the challenges and benefits of teacher leadership as a strategy to improve the educational experiences of students. Teacher leadership is a resource intensive reform that requires organizational adjustments, teacher leader capacity building, and steady engagement with teachers over time. These investments can thicken the instructional infrastructure of schools and districts and provide important capacity to support both the work of teachers and the collaborative culture of schools that can translate into improved learning opportunities for students.