

TEACHERS AT WORK

DESIGNING SCHOOLS
WHERE TEACHERS &
STUDENTS THRIVE



Opportunities to Collaboratively
Improve School Work Environments

Full Brief | October 2018

100K_{IN}10

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PART 1

**ACTIONABLE
BRIEF**

INTRODUCTION

Schools are the engines of economic and social mobility, where the virtues required for citizenship are wrestled with and practiced, and where the foundations of a robust and dynamic citizenship, democracy, and economy are nurtured.

Teachers are the heart, soul, and muscle of our schools. Research has pointed time and time again to teachers as the strongest in-school influence on student learning and development. They guide our children to think critically, carefully, and creatively, and to reach their greatest potential as adults. The people who will cure dementia and take us to Mars, renew our energy resources and revolutionize how we communicate, design our cities, and mitigate natural disasters — they are sitting in our nation’s classrooms at this very moment. And it’s our teachers who are fueling their dreams and igniting their passions, laying the foundation for the breakthroughs and inventions that will drive us into the 22nd century.

Despite understanding this truth, schools too often neglect teachers. Teachers also have dreams, and they too need to be nurtured to reach their fullest potential. This means creating workplaces where teachers are empowered by school leaders as professionals to learn and grow and to meaningfully collaborate with peers.

But too often, we fall victim to the misimpression that schools must choose either student learning or teacher learning, when in fact student learning and teacher learning are interwoven and mutually reinforcing. When teachers flourish as professionals in schools, they leave the classroom far less frequently and have significantly higher satisfaction. As a result, teacher instruction is stronger, students learn more, and our next generation is more prepared and inspired to pursue the educations, careers, and lives of their choice.

Recognizing this, 100Kin10 decided to mobilize our network to address three issues related to teachers’ work environments in schools that, based on more than two years of research and tens of thousands of data points, rose to the top as the highest leverage opportunities for impact:

1. [Relevant professional growth during the school day](#)
2. [Opportunities for teacher collaboration during the school day](#)
3. [School leader responsibility for creating positive work environments](#)

Guided by a Brain Trust of partners and teachers, 100Kin10 dug into the research surrounding these issues, looking both at what has inhibited progress and where the field has experienced success thus far. This analysis points us to the areas in greatest demand, where the network can deploy its unique collaborative problem-solving capacities to address the multifaceted nature of these work environment issues in schools.

As a precursor to the findings, we want to emphasize that although we are a network focused on STEM teachers, these issues are almost always experienced across entire school communities and are not particular to one subset of teachers. Therefore much of this analysis is applicable to a broader range of teachers beyond those that focus exclusively on STEM.

This report is intended to lay the groundwork and be the launchpad for diverse, coordinated, and mutually reinforcing efforts to improve school work

environments, not to serve as a research publication. With this in mind, we have designed the report in two parts: 1) the “actionable brief” focuses readers on background information, a summary of the themes identified through the research, and the most meaningful opportunities for impact, and 2) the “supporting research and analysis” that ensures that those who want to dig in deeper or access more specific evidence have the means to do so.

We invite you to join us. Start by digging into the briefing booklet, and then into the full report as it suits your needs. Then contribute your unique assets and resources to coordinated efforts to transform more schools into supportive and growth-oriented workplaces for teachers and thriving learning environments for all members of the school community. Together we can support all schools to develop and nurture a positive work environment for teachers.

PURPOSE

Over two years, 100Kin10 developed the [Grand Challenges](#), an unprecedented roadmap of the underlying problems facing the STEM education landscape and the first-ever comprehensive ecosystem of a social-sector problem. The map identifies 104 critical challenges and the “[catalysts](#)”, the greatest leverage points for change across the Grand Challenges. The catalysts reflect the synthesis of tens of thousands of perspectives on which issues, if improved, would generate a domino-like effect and the most improvement across the system.

Three of the catalysts were related to teacher work environments, which far overrepresented this issue’s appearance in the map at large. Based on their outsized influence, as well as partner desire to work on these topics, current field-wide activity and interest, research into opportunities for impact, stakeholder evaluation of their value, and the network’s unique position to make change against them, we decided to focus the network on these three. To reiterate, they are relevant professional growth during the school day, opportunities for teacher collaboration during the school day, and school leader responsibility for creating positive work environments.

Over the coming year and beyond, we will work with and empower our network to collaboratively effect lasting change against these catalysts related to work environment. The network at large will both accentuate that focus and continue to support all partner organization in the network to learn, innovate, and implement their work toward the shared goal of providing America’s classrooms with 100,000 excellent STEM teachers and addressing the Grand Challenges that created this shortage in the first place.

In the summer of 2018, as we began the research that informs this report, we set out to gain a deeper understanding of the teacher work environment catalysts, with the ultimate objective of answering one question: “What actions should the field undertake to address the

teacher work environment catalysts, and where is the 100Kin10 hub uniquely positioned to drive that action across our network by employing our collaborative problem-solving tools?”

The following questions guided this work:

- What are the issues that cause the work environment catalysts?
- What has already been tried across the field in response to the work environment catalysts, and what do we know about what is and isn’t working?
- Taking into account the analysis of the influencing issues and existing or past efforts, where do opportunities exist to try something new?

The research and analysis used three types of data:

- Desk Research — We completed a review of more than 60 sources, including academic research, editorials, news articles, websites, and blogs, including a deep investigation of over 30 organizations’ work.
- Interviews — We completed phone interviews with leaders from eight organizations working deeply in one or more of the catalyst areas.
- Brain Trust Advisory — We convened an advisory group consisting of diverse leadership from 100Kin10 partner organizations and the Teacher Forum, and consulted them multiple times during the project. The group provided feedback on the research questions and plans, contributed to a root cause analysis, and provided feedback on early versions of the research summary and opportunity areas.

A full accounting of references, interviews, and Brain Trust members is included in the Research Sources section of this report.

EXPLAINING “POSITIVE WORK ENVIRONMENT”

There are multiple existing conceptualizations of what a positive work environment for adults looks like in a school setting. Some of these definitions present largely comprehensive definitions of adult work environment, explicitly addressing the idea that an adult’s work environment is distinct from broader ideas of school culture and climate and more student-facing definitions of school-based environments. Others discuss or define components of adult working environment more indirectly, for example, implied in discussions of the supports or culture adults require in order to create a positive climate for students. 100Kin10 is not seeking to create or select one definition of positive work environment. Instead, we identify here a grouping of existing definitions and constructs that resonate with our conceptualization of the work environment catalysts we seek to address, and through their compilation provide a working definition for the purposes of this work.

At its simplest level, many existing definitions hone in on the systems and supports teachers need to create a positive school climate for students, thereby indirectly describing aspects of the working conditions needed for teachers to be effective at driving student learning. In a recent study, researchers from the University of Chicago Consortium on School Research captured this idea when reporting that school principals most influence student learning by fostering strong learning climates, and effective leaders act to promote strong learning climates through creating “systems for supporting teachers to support students.”¹¹ Of the systems teachers need to support students, the Chicago Consortium’s researchers focused on structures for collaboration among staff and systems that advance the leadership capacity of the school around shared goals.

While the Chicago Consortium’s notion is both high-level and framed around fostering positive climate for students rather than directly addressing adult working environment, other frameworks are highly complementary and provide more direct and/or detailed conceptualizations of adult working environment within a school.

New Leaders, in their report “Playmakers: How great principals build and lead great teams of teachers,” describes three intersecting areas where great principals take action to build effective teams of teachers and amplify great teaching. As seen in Figure 1, one of these areas, titled “Creating a Great Place to Work,” defines the following components:

- Building a culture of respect through establishing routines and rituals that signal teachers are valued; demanding that teachers respect one another, for example, through respectfully resolving differences; and respecting teachers’ time and opinions
- Fostering teacher learning communities through giving teachers a structured way to learn from each other and push each other to improve, and encouraging collaboration among teachers
- Individualizing roles and responsibilities through understanding their staff’s teaching interests and making every effort to accommodate that
- Cultivating leadership through giving teachers a voice in decisions and rewarding teachers with increased leadership
- Instituting a code of conduct through enforcing school-wide consistency and aligning codes to school values

Nicole Simon and Susan Moore Johnson, in their paper reframing the factors leading to teacher turnover in high-poverty schools, reviewed multiple existing studies that examined the impact of working conditions on teacher turnover. They argue that poor working conditions for teachers in low-income schools are the driver of teacher turnover, and that retention strategies to staff these schools must focus on improving the environment for teachers. Their research found that across all the studies reviewed, some combination of the following three aspects of working conditions influenced teacher satisfaction and career decisions: quality of school leadership, the caliber of collegial relationships, and specific aspects of school culture.

Simon and Johnson describe school culture as a broad construct encompassing many elements of a school's context, without a clear or agreed-upon definition across the field. Broadly, it includes concepts such as the norms and values that influence behaviors, and the extent to which there is a sense of community and mutual social trust. Simon and Johnson also describe the overlap between elements of school culture and the other two components of working conditions identified across the research, for example, the principal's responsiveness to teachers' ideas and teachers' readiness to support new colleagues. In their paper, while acknowledging the broad set of ideas often included in definitions of school culture, they choose to focus on two centered on interactions with students and parents — student discipline and parent engagement — as specific aspects of school culture that are powerful drivers of teacher turnover.³

Researchers from the Learning Policy Institute note the following key factors influence teachers' decisions about whether or not to stay in the profession — all aspects of work environments that mediate between the school leader's role and teacher retention, and all areas where the principal plays a central role:

- School culture and collegial relationships
- Creating collaborative environments, including time for collaboration
- Presence of distributive leadership structures and teacher leadership roles

- Decision-making input for teachers
- Career advancement opportunities for teachers
- Teachers serving as mentors or models for their colleagues^{4,5}

The Wallace Foundation, in its report “The School Principal as Leader: Guiding Schools to Better Teaching and Learning,” identifies five practices that are key to the work of effective principals, based on lessons from 20 years of their focus on school leadership:

- Shaping a vision of academic success for all students, one based on high standards
- Creating a climate hospitable to education in order that safety, a cooperative spirit, and other foundations of fruitful interaction prevail
- Cultivating leadership in others so that teachers and other adults assume their parts in realizing the school vision
- Improving instruction to enable teachers to teach at their best and students to learn to their utmost
- Managing people, data, and processes to foster school improvement



When defining a climate hospitable to education, Wallace reports: “Effective principals ensure that their schools allow both adults and children to put learning at the center of their daily activities ... characterized by basics like safety and orderliness, as well as less tangible qualities such as a ‘supportive, responsive attitude toward the children and a sense by teachers that they are part of a community of professionals focused on good instruction.’”⁶

The Urban Schools Human Capital Academy defines the following nine “Components of a Strong Team Culture,” noting culture is the way an organization “does business” and is “what we say, what we do, and what we value”:

- Creating a Shared Team Vision and Direction
- Agreeing Values, Practices, and Behaviors
- Building Team Identity
- Setting Goals and Facilitating Results
- Appreciating and Using Team Differences
- Strengthening Team Capabilities
- Being Mutually Accountable
- Exploring Possibilities and Perspectives
- Driving for Results and Challenging the Process⁷

1. Allensworth, E.M. & Hart, H. (2018). *How do principals influence student achievement?* Chicago, IL: University of Chicago Consortium on School Research.
2. Ikemoto, G., Taliaferro, L., & Adams, E. (2012). *Playmakers: How great principals build and lead great teams of teachers.* New York, NY: New Leaders Inc.
3. Simon, N. & Johnson, S.M. (2015). *Teacher Turnover in High-Poverty Schools: What We Know and Can Do.* *Teachers College Record.* 117(3), 1–36.
4. Learning Policy Institute. (2017). “The Role of Principals in Addressing Teacher Shortages” (research brief). Palo Alto, CA: Learning Policy Institute.
5. Interview with Desiree Carver-Thomas.
6. Wallace Foundation. (2013). *The School Principal as Leader: Guiding Schools to Better Teaching and Learning.* New York, NY: Wallace Foundation.
7. Wallace Foundation. (2013). *The School Principal as Leader: Guiding Schools to Better Teaching and Learning.* New York, NY: Wallace Foundation.

THEMES FROM THE ANALYSIS

Our examination of over 60 sources, supplemented by focus groups and interviews, revealed myriad reasons why many teachers face poor work environments in schools. From this, four related themes emerged: current beliefs, structures, capacities, and resources interfere with strong work environments for teachers. Those four challenges interact to restrict meaningful, relevant, and regular opportunities for professional growth and collaboration for teachers during the school day and to hinder principals from building positive work environments for teachers.

This section describes each theme and summarizes its primary causes, such that readers can quickly understand the roots of why school environments today too rarely enable adults in the building to thrive. We also summarize high-level learnings from the field about what is currently known to work well to address these challenges, setting us up to pivot to opportunities for action in the following section. A complete analysis of the influencing causes and the solution space is included in the full version of this report.

BELIEFS

Ample research demonstrates the strong relationship between healthy work environment and teacher retention, teacher satisfaction, effective instruction, and ultimately student achievement. However, predominant beliefs undervalue work environment for teachers, and specifically how it drives student learning. In response, K–12 education is designed with a primarily student-centric view. Student learning broadly, as well as schooling experiences and climate for students, drives the vast majority of reform efforts and decisions about which programs and strategies to implement, how to expend resources, and how to approach teacher professional learning. While a focus on student learning is certainly not a bad thing per se, it often comes at the expense of a similar valuing of adult learning and growth, and the nature of the work environment for adults within schools. This stems from the commonly held, albeit misguided, assumption that schools must choose between student learning and teacher learning.

In fact, the success of students and teachers is closely tied and mutually reinforcing. Ultimately, teacher professional growth is needed to ensure teachers are best able to serve all students.

The widespread beliefs that result in the undervaluing of teacher professional culture in today's school environments are driven by two main factors. First, many district and state leaders, policymakers, reformers, and school leaders lack awareness about the importance of teacher work environment and the evidence of its impact on student learning. Second, in many cases, state and local policymakers and district and school leaders do not regard the school as a workplace or teaching as a valued profession, missing the complexity and challenge inherent in teachers' work.

STRUCTURES

A mismatch exists between traditional school structures in place today and those that research has shown create positive work environment. Examples of school structures that, as currently implemented in most schools, do not align with a strong and positive teacher work environment include school schedules, teacher career pathways, methods of distributing school-level leadership responsibilities, teacher evaluation and accountability models, professional development delivery and content selection, and compensation models. Building a positive work environment for teachers and instituting high-quality, consistent opportunities during the school day for teacher collaboration and professional growth require substantial shifts and redesign of the structures currently in place in most schools.

This mismatch is influenced by several factors. First, school and district leaders have neither experience with nor training in what a well-functioning work environment in schools looks like, and how to create and sustain it in a way that reinforces and

enhances student learning. Second, traditional school structures are not designed to prioritize teacher work environment, nor do they easily accommodate the kinds of significant changes required to address the work environment catalysts in a meaningful and successful manner. Furthermore, school leaders often have limited autonomy or flexibility to make decisions about key structures at the building level.

Finally, authentic teacher leadership models are shown by research to be a core component of school environments with high-quality, embedded professional learning and collaboration opportunities, and to be a key mechanism for creating positive working conditions for teachers. Yet those models often fail to institute the structures needed to support effective implementation. For instance, one often sees teacher leadership models instituted without structures such as formalized teacher leadership roles within a clear career pathway and sufficient, regular meeting time for teacher teams.

SCHOOL LEADER & TEACHER CAPACITY

Improvements in work environment for teachers, specifically those that increase opportunities for learning and collaboration during the school day, rely on actions on the part of school leaders to design, implement, and ultimately support new strategies, as well as capacity on the part of teachers to effectively work inside of those strategies. Designing and implementing these kinds of integrated approaches is challenging and requires substantial effort and ability, particularly for school leaders without experience or understanding for how to do so. Beyond this, school leaders often lack the capacity, both in terms of knowledge and skills, and the available time and other supports to execute these actions, and receive little training or ongoing learning to aid in these efforts. Moreover, teachers need support for how to operate effectively in work environments that offer meaningful leadership opportunities and opportunities for collaboration.

Lack of school leader and teacher capacity to improve work environment in schools stems from several factors. First, school leader training programs do not provide leaders with the training, knowledge, and skills to redesign teacher professional growth and collaboration opportunities, design and implement high-quality distributed leadership structures, serve as an effective managers for teachers and teacher leaders, and ultimately create positive working environments for teachers. As noted earlier, this also contributes to school leaders' and teachers' beliefs about what an effective culture and work environment look like in schools and how to create them. Second, principal responsibilities and demands are numerous and overwhelming, leaving school leaders with little time to focus on these significant redesign efforts and the longer-term work of shifting culture and work environment. Finally, teachers lack the training and support to be stewards of their professional growth and to effectively operate in an environment that utilizes collaboration.

RESOURCES

Research across the work environment catalysts points to the need for additional and more flexible funding and resources to promote positive teacher work environments and create more opportunities for high-quality learning and collaboration during the school day. Additional or repurposed funding is first needed to introduce new, effective models into schools. Then, even more resources are required to support the implementation of the models themselves: additional compensation for teacher leaders, capacity-building opportunities for school leaders to effectively implement these models, and supporting staff or other methods that allow teachers to meet during the school day without reducing meaningful student instructional time.

Two primary factors drive the lack of resources to support the design and implementation of strategies to support teacher work environments. First, strategies aimed at improving teacher work environments and that prioritize teacher learning and working conditions are often not aligned with existing district budget priorities and constraints. This makes it difficult or impossible for school leaders to justify shifting existing resources or requesting additional funds towards these strategies, particularly in environments with little budget autonomy or flexibility at the school level. Second, because schools often do not have the data to assess working conditions and their impact, school leaders and others can be challenged to make the argument for allocating additional resources to address these issues.

LEARNING FROM WHAT'S WORKED

Alongside analyzing the challenges to implementing strong teacher work environment in schools, we identified efforts to address these areas and highlight those that are working well or showing promise. In the full report, we include spotlights of successful programs and organizations. Below, we summarize themes seen across those existing efforts.

Much is currently being done to provide teachers with more opportunities for relevant, high-quality professional growth and collaboration during the school day. Several models exist that encompass the integrated approach identified by the research and serve to support districts and schools with the training, tools, and technical assistance to transform their schools into learning environments for teachers. The most successful efforts to integrate teacher professional growth and collaboration into the fabric of the school day are anchored by the following components:

- Time for consistent, frequent, intensive interactions between a coach and/or teacher leader and with collaborative teams, on average one to two hours per week
- Formal roles for teacher leaders that are well-defined, with clear authority and accountability attached to the role, multiple roles in a teacher leadership career path, and appropriate financial and other recognition for their expertise and leadership work
- Clear, new roles for school leaders as supporters of teacher leadership, and through a distributed leadership model, ultimately of teacher and student growth
- Structures, tools, and resources that guide collaboration and professional growth activities and ensure they are relevant, meaningful, and actionable
- Capacity-building and ongoing support for school leaders, teacher leaders, and teachers to effectively carry out professional growth and collaboration activities during the school day

- A high-quality standards-aligned curriculum serving as a precondition of and foundation for teacher growth and collaboration activities, ensuring they are relevant and aligned to a school's broader instructional improvement efforts

Research points to three key aspects of a principal's role that have a direct impact on teacher working conditions, collectively naming how effective leaders need to provide both instructional and emotional support to their teachers as part of cultivating positive adult work environment:

- Principals as overall school managers, ensuring administrative concerns are handled, systems and structures are in place to enable teachers to do their best work, and teachers have the resources needed to deliver effective instruction
- Principals as instructional leaders, ensuring teachers have the support to master their craft and leadership is distributed to expert teacher leaders
- Principals as drivers of a community and culture within their buildings, ensuring that they are great places for adults to work, with an overall sense of community and culture of mutual respect, collegial support, and collective ownership of vision and outcomes

While the research is clear on these three parts of a principal's role, not enough is known generally in the field about how school leaders go about creating positive work environments for teachers. In addition to this limited knowledge, there is little publicly available information about effective practices and methods to train and support school leaders to create positive work environments in their buildings. Notably, efforts are currently underway to better catalog existing models of leadership development that focus on these competencies.⁸

8. For example, the Learning Policy Institute is currently conducting case studies on leadership preparation with the desire to focus on programs that prepare leaders with the skills needed to create collaborative environments and other markers of positive teacher work environments.

OPPORTUNITIES FOR MOVING THE FIELD

Building on our research, we identified a handful of promising opportunities, prime for collaborative action by 100Kin10 partners and allies, with the power to shift work environment for teachers in schools. As the previous section on themes reveals, there are many challenges we face as a field, but there is also a substantial amount of knowledge that exists in schools, districts, and capacity-building organizations about how leaders and others can effectively nurture positive work environments in schools. As with so many challenges in education, we needn't rush as a field to innovation — many of the solutions are right in our own (or a nearby neighbor's) backyard. Alongside elevating promising practices and continuing to learn about and improve them, perhaps the biggest challenge will be figuring out how to facilitate access to promising practices for those who are in a position to adapt and incorporate them into their own efforts and contexts.

In this section, we introduce several opportunities with the potential to make field-level progress against the issues of teacher work environment in schools:

1. The field needs to shift our collective **beliefs** about schools to be spaces of inclusive learning, where both kids and adults are empowered, encouraged, and supported to grow in their respective pursuits, and where the strong correlation between student and teacher learning is recognized and valued.
2. Leadership of districts and school groups needs to implement **structures** that value teacher learning, professionalism, and working conditions, alongside student achievement.
3. School leaders need additional **capacity**, specifically practical information, tools, and support, to bring to life the structures that value teacher learning, professionalism, and working conditions, alongside student achievement; and teachers need additional **capacity** in the form of skills and knowledge to be contributing members of — and sometimes leaders in — a robust and collaborative learning environment.
4. Districts and schools need additional and more flexible **resources** to design and implement the structures that will build positive teacher work environments and create more opportunities for high-quality learning and collaboration during the school day, and then to deepen school leader and teacher capacity to actualize those structures.

The field needs to shift our collective **BELIEFS** about schools to be spaces of inclusive learning, where both kids and adults are empowered, encouraged, and supported to grow in their respective pursuits, and where the strong correlation between student and teacher learning is recognized and valued.

DO NOW

Engage communications expertise to develop messaging tools to talk to state and local leaders, school boards, teacher and principal preparation and support-providers, and school leaders themselves about **the importance of a strong work environment for teachers in schools and its impact on teacher retention, teacher satisfaction, effective instruction, and student learning.**

- This could include guidelines or instructions on how to implement or adapt these tools to enable wider use.
- This messaging would use 100Kin10's research on the work environment catalysts and include connections to quality implementation of standards-aligned curriculum, the impact on highest-need schools, etc.
- This messaging would also seek to bolster awareness and understanding of the connection between work environments and teacher retention and effectiveness, and ultimately student learning.
- This could also include telling the stories of schools and school leaders who are prioritizing strong work environments through practices that include teacher learning and collaboration.
- Refer to Californians Dedicated to Education Foundation's research on labor management collaboration.

THEN BUILD

Adapt messaging tools to local contexts and for their specific perspectives and needs.

- For example, the “template version” could instruct individuals adapting the tools to connect with the local teachers and students, and elicit their voices around the importance of strong work environments, job satisfaction, and more. Their quotes and the local data on job satisfaction and retention could then inform and be infused into the messaging.
- This adaptation could grow into a local advocacy campaign around teachers' work environment, or be integrated into a district-wide culture reboot. It could even happen school by school, organized and coordinated by local teachers, parents, or other community members.
- Further support beyond the guidelines or instructions, including expertise in campaigns, movement-building, or change-management, as well as an exchange of what is and isn't working across use cases, would likely lead to stronger implementation.
- Early examples and stories of adaptations can enable and encourage broader utilization and learning about effective implementation.

District, Charter Management Organization, and other school management and support groups need to implement **STRUCTURES** that value teacher learning, professionalism, and work environments, alongside student achievement.

DO NOW

Building on the research in this report, perform a landscape scan to consolidate **evidence-backed school models that value teacher work environment, alongside student achievement.**

- The research should explore topics including schedules, teacher leadership roles, principal roles, distributive leadership, and other structures that enable positive work environment in schools.
- Flexibility to continue teaching while taking on additional leadership opportunities is key to successful teacher leadership models, as is training and support specific to teachers' new leadership responsibilities.
- Explore models including the National Network of State Teachers of the Year's teacher leadership curriculum for resources on adult learning and teacher teams, the New Teacher Center's work with teacher leaders, the New Leaders' Emerging Leaders program, and Oakland Unified School District's investment in a science teacher leader model.
- Explore the work of the National Network of State Teachers of the Year and the Aspen Institute focused on distributed leadership that crosswalks education leadership/administrator standards and teacher leadership standards, as well as Public Impact's Opportunity Culture.
- This scan should include an analysis of key elements that schools and districts can consider adapting.

THEN BUILD

Involve a subset of 100Kin10 partners and allies in a “micro-network” of districts, CMOs, and other school management and support groups to implement and test school models that value teacher work environments, based on findings from the landscape scan.

- Participation in the micro-network can include learning exchange; collaboratively building, adapting, or improving solutions; deepening the knowledge base on teacher leadership models; and more.
- Start with districts, CMOs, and other school management and support groups that are eager early adopters to develop champions and help build broader excitement. Also consider engaging regional centers or cooperatives in states, as they have existing strong relationship with diverse districts and can help engage more partners and expedite uptake of strong practices.
- These discussions should include the head of operations within districts, CMOs, and other school management and support groups, where applicable, as they are key decision-makers around how money is allocated to enable different types of school models. It may also be important to include school boards in these conversations.

District, Charter Management Organization, and other school management and support groups need to implement **STRUCTURES** that value teacher learning, professionalism, and work environments, alongside student achievement.

DO NOW

Create a playbook that explains how to **use strategies such as collective leadership to develop teacher contracts that value teachers' work environments**, but also respond to the needs of the district and the union. Use success stories as examples to build from.

THEN BUILD

Districts and unions can adapt this playbook and apply it to their contract negotiations.

District, Charter Management Organization, and other school management and support groups need to implement **STRUCTURES** that value teacher learning, professionalism, and work environments, alongside student achievement.

DO NOW

Explore how **capacity-building organizations that support districts and schools can partner to coordinate efforts** and enable more integrated approaches and ultimately wider adoption and implementation of effective models for strong work environment in schools.

- This discussion will investigate how focused collaboration or integration across organizations working to support system transformation could build coherence within systems, lead to the ability to collectively support more districts, and be expanded to explore how schools and districts, CMOs, and other school management and support groups can over time adapt and integrate these quality practices and models into their core operating model. This could result in a decreased reliance on these external services.
- As a starting place, explore emergent work in Tulsa, Oklahoma, to coordinate the work of multiple support organizations to scale practices that support teacher growth and collaboration across a group of more than 20 schools, supported by the Schusterman Foundation, to assess ongoing work in this area and opportunities for expansion. Also explore the American Federation of Teachers' Peer Assistance and Review system focused on fostering continuous professional growth, and the work in Kansas City, Missouri, with School Smart Kansas City.

District, Charter Management Organization, and other school management and support groups need to implement **STRUCTURES** that value teacher learning, professionalism, and work environments, alongside student achievement.

DO NOW

Survey the field to identify **different types and roles of principal managers**, and how these differences enable or inhibit principal effectiveness in general, and specifically principal effectiveness in nurturing schools that value student and teacher learning.

- This survey should include the different cost structures for these principal managers and how districts have integrated into traditional structures or shifted their staffing to make possible.

THEN BUILD

Looking across the effectiveness of different kinds of principal managers, develop a checklist that districts could use to guide how they refine or define the principal manager role. This checklist could also be used by principal managers themselves to guide their direct goals and strategies with principals.

School leaders need additional **CAPACITY**, specifically practical information, tools, and support, to bring to life the structures that value teacher learning, professionalism, and working conditions, alongside student achievement; and teachers need additional **CAPACITY** in the form of skills and knowledge to be contributing members of — and sometimes leaders in — a robust and collaborative learning environment.

DO NOW

Perform a landscape scan including both secondary research and surveys with principals to identify the **specific actions by principals that are most critical to building positive work environments**.

- There is a big opportunity to learn from school leaders around the country who are already doing excellent work to build strong work environments that prioritize teachers. Look into New Leaders’ “Playmakers” report and Transformational Leadership Framework for foundational information.
- The output of this scan would include key practices that principals can adapt in their own schools to build a stronger work environment.
- This can also include a scan of successful management practices in nonschool environments and build on best practices and tools to analyze culture in other sectors.

THEN BUILD

Develop processes and systems that enable principals to capture data that help them understand if and how effectively they are employing the practices identified through the scan of school leaders excelling in building positive work environments.

- It could also come to life as a “quiz” that school leaders could take to evaluate the work environment in their schools.
- Next, invite a group of principals to implement these practices and gather data on them to deepen knowledge about the impacts of these practices.

School leaders need additional **CAPACITY**, specifically practical information, tools, and support, to bring to life the structures that value teacher learning, professionalism, and working conditions, alongside student achievement; and teachers need additional **CAPACITY** in the form of skills and knowledge to be contributing members of — and sometimes leaders in — a robust and collaborative learning environment.

DO NOW

Map out the **continuum of a principal's professional track**. Identify the current major milestones in a principal's training and support, and where possible, point to gaps within it.

- A connected and coherent professional experience for principals would lead to more effective principals and teachers, which have a direct and strong impact on student learning. The professional continuum of a principal — including recruitment, preparation, certification, and ongoing support — is not sufficiently understood and rarely given the attention or investment it deserves.
- Explore current principal preparation and support models to identify both their current priorities and where there are opportunities to expand or shift them to integrate training on building positive work environments.
- This mapping should include a focus on the data we would need to collect to drive this work, including teacher turnover, principal turnover, deployment to high-needs schools, retention of highly effective principals and teachers, and more. It could also be important to disaggregate these data by race or ethnicity to further understand gaps in students' access to teachers and principals who share their backgrounds.
- Explore how mentorships or internships in schools with strong work environments for teachers can support the preparation of future principals. Also explore how these schools that have a strong work environment help build the pipeline for future principals.

THEN BUILD

Players working across the principal continuum can come together to identify how they can collaboratively address these gaps.

- This could include, for example, a method for measuring the inputs of teacher retention to better understand the biggest influences that encourage our most effective teachers to stay in the classroom.
- Or it could include principal preparation and/or support programs participating in a working group to determine how to integrate findings from these scans into their prep programs.

School leaders need additional **CAPACITY**, specifically practical information, tools, and support, to bring to life the structures that value teacher learning, professionalism, and working conditions, alongside student achievement; and teachers need additional **CAPACITY** in the form of skills and knowledge to be contributing members of — and sometimes leaders in — a robust and collaborative learning environment.

DO NOW

Perform a scan to identify best practices across fields in **training individuals to effectively collaborate with and lead adults**.

- Using the findings from the scan, pinpoint key practices that can be adapted for teacher preparation and professional development.
- This can include schools, districts, or organizations that are successfully training or supporting teachers to build collaboration skills and teacher-leadership skills.
- It should also investigate the role of the school leader.
- Look into Teach For America's work on effective collaboration identified through their research on leadership.

THEN BUILD

Organizations that work with pre-service or in-service teachers can develop a set of practices that can be infused into existing teachers-facing programs that support teachers to develop collaboration and peer-leadership skills.

- This includes organizations that are preparing or supporting teachers to use co-teaching models.

Districts and schools need additional and more flexible **RESOURCES** to design and implement the structures that will build positive teacher work environment and create more opportunities for high-quality during-the-school-day learning and collaboration, and then to deepen school leader and teacher capacity to actualize those structures.

DO NOW

Develop a cohesive set of materials and guidelines that encourage states and districts to use **Title II formula funds to strengthen principal quality.**

- Under the Every Student Succeeds Act, up to 3 percent of Title II funds can be set aside to strengthen principal quality, including by investing in principal recruitment, preparation, induction, and development.
- These resources should help users understand efficient ways to use these funds to ensure a strong return on investment, as well as making the case for how allocating funds toward school leader professional learning will have a multiplied impact on teachers.
- They should also acknowledge that there is not widespread awareness about this opportunity, and that raising awareness about it is likely a piece of this effort.
- Consider bringing on expertise in policy, communications, or campaign-design to support the development of resources.
- Explore New Leaders' existing resources, such as the white paper "Prioritizing Leadership: Opportunities in ESSA for Chief State School Officers," as a starting place.

THEN BUILD

Connect and network organizations that are using these materials and guidelines to enable their effective implementation by sharing successes, acting as thought partners to overcome roadblocks, and serving as peer experts.

- Continued support from experts in policy, communications, or campaign-design may be necessary.
- An aligned community of stakeholders using these resources would also increase their impact.
- Early examples and stories of adaptations can enable and encourage broader utilization and learning about effective implementation.

PART 2

**SUPPORTING
RESEARCH &
ANALYSIS**

ANALYSIS OF THE TEACHER WORK ENVIRONMENT CATALYSTS: CAUSES AND PROMISING PRACTICES

As noted earlier, this research set out to gain a deeper understanding of the teacher professional culture catalysts with the ultimate objective of answering the following question: “What actions does the field most need to undertake to address the teacher work environment catalysts, and where is the 100Kin10 hub uniquely positioned to drive that action across our network by employing our collaborative problem-solving tools?” To address this question, we examined existing evidence describing the root causes of each of the teacher work environment catalysts, as well as current efforts in the field to address each catalyst area.

The following section provides a detailed look at the evidence collected. It first examines the relevant professional growth catalyst and collaboration during the school day catalyst, looking both at their causes and at what has already been tried across the field to respond to them. Given the large overlap in research and efforts surrounding them, we combined the deep analysis of these two areas. We then turn to the issue of how school leaders create positive work environments in schools, again considering both the causes and the solution space. In both subsections, the causes are organized by the four themes: beliefs, structures, school leader and teacher capacity, and resources.

RELEVANT PROFESSIONAL GROWTH AND OPPORTUNITIES FOR TEACHER COLLABORATION DURING THE SCHOOL DAY

WHAT ARE THE CAUSES OF THE CATALYSTS?

Beliefs

Teacher learning and collaboration, when authentically and consistently embedded in teachers' day-to-day work, are not perceived to be critical inputs to student achievement. More directly, district leaders and policymakers often do not understand and value the benefits of high-quality collaboration and professional growth opportunities when provided at the expense of time in the classroom. In many cases, leaders and policymakers do not understand or heed research demonstrating how teacher professional growth and collaboration lead to enhanced student learning and teacher self-efficacy. Yet research supports the relationship between these opportunities and both teacher and student outcomes.

For example, the National Center on Education and the Economy's Empowered Educators Study compares and describes teachers and teaching quality in five of the world's top-performing education systems, as measured on 2015 Programme for International

Student Assessment (PISA) results looking at student achievement in three tested subjects.⁹ The study demonstrates that a greater prioritization on teacher collaborative professional learning time in other countries is associated with higher student performance outcomes, even when teacher collaborative time is made possible by teachers spending less time directly with students.

Further, according to data on the Organisation for Economic Co-operation and Development's (OECD) Teaching and Learning International Survey (TALIS), U.S. teachers spend significantly more time teaching students than other, higher-performing countries. For example, lower-secondary teachers in the U.S. spend 27 hours per week on average teaching students directly, about 50 percent more than the international average of 19 hours. Comparatively, teachers in Singapore spend about 18 hours a week teaching,

and teachers in Shanghai spend about 15 hours. Collaboration is also associated with teacher outcomes such as satisfaction and self-efficacy, both predictors of teacher retention. As Empowered Educators explains, participating in peer networks is a key element of teacher professionalism, which is associated with teacher satisfaction and self-efficacy. The study notes that "evidence is clear that the most effective settings for learning feature considerable joint work among teachers."¹⁰

Given prevailing perceptions across the field, it's not surprising that opportunities for teacher learning are not prioritized in the structure of the school day. The school day as currently envisioned and structured in most current settings is wholly focused around student learning, not adult learning. While none would argue that student learning should be deprioritized, many stakeholders describe the need to raise the prominence and focus on teacher learning as a critical driver of both teacher retention and ultimately student learning.

Yet significant pressures on teachers around student performance often translate to policies and beliefs that instructional time must be prioritized at all costs, without regard for how high-quality teacher collaboration and professional learning contribute to student learning. As a result, professional growth for adults has traditionally been structured around quick experiences that minimize time away from the classroom. Similarly, many school leaders do not perceive that building strong teacher teams, supporting ongoing teacher growth, and cultivating teacher leadership is a critical lever for achieving their overall school goals, and therefore do not prioritize creating these opportunities in their school improvement plans and resulting initiatives.

Additionally, teachers and teacher leaders are not currently trusted and empowered to shape the decisions and resources used to improve instructional quality, including how time is used and the strategies and content of their own learning. An Education Week Research Center survey found that 42 percent of teachers report they have little to no influence on the professional development available to them on the job.¹¹

Business-as-usual practice in most districts looks to district-based staff, outside providers, or school leaders to drive and lead all professional growth opportunities for teachers. The model for professional growth therefore is largely externally driven, often ignoring or failing to recognize the local resources teachers could provide. As a result, teachers are not provided authority to design how their planning time is used, what collaboration opportunities exist and how they are structured, and more broadly, the what and how of their professional learning.

Notably, teacher perceptions and ingrained beliefs also contribute to challenges in implementing authentic models of collaboration. Many teachers resist opening their classrooms to colleagues; similarly, teachers and leaders both are often wary of models of shared teaching and accountability. Classroom environments and teacher experiences historically tend to be more solitary rather than community-minded, with teachers acting as independent entities. Professional autonomy for many teachers resides in the instructional choices they make in their classrooms as teachers.

Systems that include receiving expert guidance from other teachers and collaboratively working as a team to engage with a common curriculum can make a stark difference to many teachers' existing views of their professional identity. Teachers also may be unclear about how authentically sharing instructional time and responsibilities in the classroom with other teachers will work, and the risks and rewards such a system may engender. The reality of current teacher evaluation systems in many districts and states also makes innovative teaching arrangements, such as co-teaching, confusing and/or less appealing to teachers.

9. Top performing countries include Australia, Canada, Finland, Shanghai, and Singapore.

10. Empowered Educators: How High-Performing Systems Shape Teaching Quality Around the World. Developing High-Quality Teaching, Policy Brief. National Center on Education and the Economy, 2016.

11. The Teaching Profession in 2017 (in charts). Accessed via http://blogs.edweek.org/teachers/teaching_now/2017/12/the_teaching_profession_in_2017_in_charts.html

Structures

Instituting high-quality, consistent opportunities during the school day for teacher collaboration and professional growth requires substantial shifts and redesign of the structures currently in place in most schools. Notably, school schedules currently in use are not designed to accommodate or prioritize meaningful teacher collaboration and learning time during the instructional day. Instead, they are designed to maximize teacher instructional time with students under the assumptions that teachers, as independent entities, do not need consistent time for learning opportunities built into the work day.

Traditional schedules often include teacher prep periods that do not align with those of the colleagues with whom teachers most need to work with closely. Even when there is time, teachers are often limited to working exclusively within grades rather than with same content-area colleagues, making it difficult to address deeper learning and instructional shifts during collaboration time. In a system that largely deprioritizes teacher learning, sufficient and regular times for teacher collaboration and growth simply do not exist. Creating these opportunities requires significant effort and knowledge to design new structures and to implement them, which exacerbates the problem. For example, teacher time to collaborate requires staff to cover classrooms; often insufficient staffing exists to provide this coverage, including a shortage of substitutes.

Furthermore, school leaders generally have limited flexibility to innovate and create the necessary conditions to facilitate meaningful collaboration and professional growth time. Many school leaders do not have authority to design creative scheduling solutions to support the needs of teachers, given district regulations, such as standard daily schedules that do

not offer flexibility with start and end times for the school day or period length. In localities with active teachers' unions, collective bargaining agreements and union expectations around teacher collaboration can direct and/or limit how much time, and in what ways, teachers can engage with one another in collaborative and professional learning activities. Budget constraints further limit their ability to be flexible and innovative with schedules and time to facilitate collaboration during the day. Much variation also exists in how flexibly principals can use their budget and the positions they are allocated to create opportunities for coverage for teachers to work together.

Research shows that formal teacher leadership roles are a critical component of driving learning and change in teacher practice. However, effective teacher leadership roles that work to drive teacher professional growth models are rare, and existing models of distributing leadership from principals to teacher leaders are often not implemented in a way that can drive real change. First, teacher leader roles are not usually formalized, with clear responsibilities and accountability for adult professional learning, nor are teacher leaders provided the needed capacity-building and support to effectively enact these roles. In their research, Bain & Company found that many school systems added more roles, but not more leaders: Adults served in new leadership roles, but these roles were ill-defined and uncoordinated, with teacher leaders not being utilized strategically to implement a coherent strategy for instructional improvement. In fact, most teacher leader roles involved superficial tasks rather than addressing real responsibilities for teacher learning. For example, 84 percent of teacher leaders reported their duties centered on facilitating meetings or passing on information from school or district leaders, rather than meaningful development-focused activities such as providing input on teacher evaluations or instructional coaching.¹²

Research also describes ways in which existing teacher leadership models are ineffective. According to Public Impact, many teacher leader roles are negatively affected by one or more of these common pitfalls:¹³

- They are temporary and tenuous, often funded by temporary grants or a political line item, not persisting long enough to influence recruitment and retention.
- They are detached from teaching, making it difficult for teacher leaders to keep their teaching skills fresh and stay connected to student needs and challenges.
- They are “low-reach,” serving to significantly reduce the number of students for whom the best teachers are responsible. Fewer students directly taught by high-performing teachers ultimately results in fewer or reduced learning gains.
- They provide insufficient time and are added on top of teachers' other responsibilities. “Co-planning, modeling, co-teaching, coaching, and collaboratively adjusting instruction based on student data require more planning time — for teacher leaders on their own and together with those whom they lead.”
- They provide low or no pay to teacher leaders who are often taking on significantly more work and/or are being recognized for their outstanding performance and expertise, sending the message that teacher leader time is not valued and that teacher leaders are expendable, rather than essential to schoolwide success.
- They include low authority and low accountability, and rarely link teacher leaders' formal responsibilities and evaluations with the success of the students and peers with whom they work.

12. Chris Brierly, Betsy Doyle and Abigail Smith. (2016). *Transforming Schools: How distributed leadership can create more high-performing schools*. Bain and Company. Washington, DC.

13. Public Impact. (2015). *The whole package: 12 factors of high-impact teacher-leader roles*. Chapel Hill, NC: Author.

School Leader and Teacher Capacity

As noted, designing and implementing new structures to provide high-quality opportunities during the school day for teacher growth and collaboration requires significant knowledge and effort, as does the ongoing facilitation and support of these models, and the teachers and teacher leaders participating in them. However, school leaders often lack the capacity needed to design, facilitate, and support these models. Most principals have not experienced a coherent system of professional learning and instructional improvement within a school, and therefore are unfamiliar with how to create and manage such a system. They may be unfamiliar with how to redesign and implement innovative scheduling and budget models, and may need technical assistance or other tools to support this process. Many similarly have not intentionally built and supported teacher teams to facilitate professional development and collaboration, and again may lack the knowledge and skills needed to design and implement models intending to support this work. Many school leaders may also not be aware of how to maximize teacher leaders as drivers of school improvement broadly and teacher growth and collaboration narrowly, and largely do not receive training or support to do this work.

Additionally, principals are often not knowledgeable about the specific content and/or professional growth needs of teachers at multiple subjects and grade levels, making it difficult to ultimately facilitate and support adult learning across a building. This may be magnified for STEM teachers, as professional growth and support needs may be different for some STEM teachers, such as advanced science and technology teachers and teachers not trained in a school of education. In many cases, these teachers may need more support with student engagement and the cultural aspects of schooling, such as how to manage a classroom and what it means to work in a school where the focus is on students rather than adults.

This focus can be a real shift for teachers coming from other sectors or who have not received formal preservice training. In fact, Educational Resource Strategies (ERS) has found that many upper-level

math, science, and technology teachers can struggle with connecting with all kids, not just those who are interested in their content.¹⁴ The need for specific content-based support may also vary widely across STEM teachers. While the approach and structures STEM teachers require for collaboration and professional growth opportunities would likely be the same as other teachers, this may translate into different ways the time might be used and potentially to the skills required of experts. In short, principals who lack knowledge and confidence in supporting the professional growth needs of teachers at multiple levels and content areas may face large challenges in creating and effectively supporting more robust learning and collaboration for teachers within the school day and building.

Current models of school leadership hold school principals responsible for all student learning as well as the management and professional growth of all adults in the building. In fact, research shows that school leaders manage significantly more adults than in most other industries, on top of the myriad other responsibilities they have as building leader. According to the Bain & Company study, in a typical school, the principal is directly responsible for the performance and development of 37 teachers, along with 10 non-instructional staff members, as compared to other fields where the average manager of highly skilled professionals manages five workers. Furthermore, principals are responsible for a long list of instructional management activities for each of the nearly 40 teachers they lead, along with all the non-instructional leadership and other tasks in their purview.¹⁵

These responsibilities leave principals feeling overwhelmed, and often physically and intellectually unable to complete all of these responsibilities with quality. Unlike K-12 education, effective organizations in most other sectors create management structures with distributed responsibilities, where leaders manage a limited number of staff, who in turn manage others and are trusted to lead their own teams. The Empowered Educators study found that high-performing schools, similar to high-performing businesses, “organize people to take advantage of each other’s knowledge and skills and create a set of common, coherent practices, so that

the whole is far greater than the sum of the parts.”¹⁶ School leaders need such a structure, where additional formal capacity and responsibility for leading the professional growth of teachers is provided by a cadre of expert, trusted, in-house teachers.

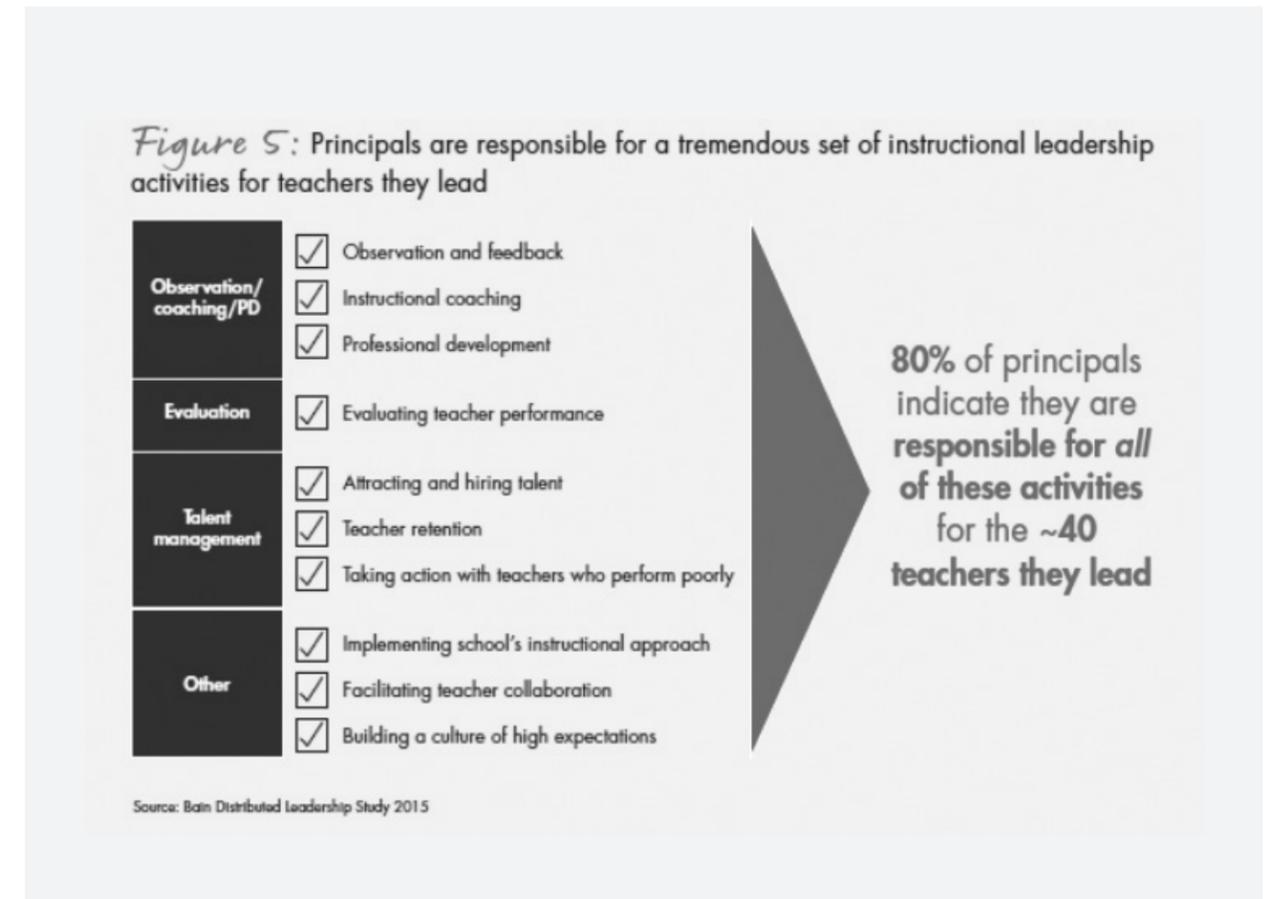
Moreover, teachers often need support to operate inside of environments that value growth and collaboration. As was noted above, many teachers do not have experience with systems that include receiving expert guidance from other teachers and collaboratively working as a team to

engage with a common curriculum; thus they are unclear on how to share instructional time and responsibilities in the classroom with other teachers.

14. Interview with Joy Delizo-Osborne.

15. Chris Brierly, Betsy Doyle, and Abigail Smith. (2016). *Transforming Schools: How distributed leadership can create more high-performing schools*. Bain and Company. Washington, DC.

16. *Empowered Educators: How High-Performing Systems Shape Teaching Quality Around the World*. Developing High-Quality Teaching, Policy Brief. National Center on Education and the Economy, 2016.



Resources

In many cases, the resources required to design and institute new approaches that prioritize teacher professional learning during the school day are not readily available, and would significantly challenge current school funding models. Both additional funding and more flexible uses of existing funding are needed to support these transformation efforts. As is, most traditional teacher compensation models do not support innovative teaching structures and scheduling to allow for teaching professional learning time during the school day. Districts are reluctant to spend additional funds (or don't have additional funds) to pay for substitutes or teacher time outside of their teaching day. Creating the formal teacher leadership roles needed to effectively implement these models requires changing teacher pay and accountability structures in ways that challenge the status quo.

Often there is limited flexibility in funding mechanisms available to school or district leaders to find additional resources to pay for these models. More broadly, these opportunities rarely align with existing budget priorities and pathways regarding teacher learning. In many districts, professional development funds are diverted to district professional development priorities (i.e., training on new curriculum adoptions) or used to pay for district-based staff and outside providers of teacher professional growth opportunities, making it difficult or unlikely for these funds to be channeled back to individual schools and teacher leaders.

Moving beyond dollars, additional resources are needed to implement high-quality professional growth and collaboration opportunities, and these needs may be more pronounced for STEM teachers. Significant gaps exist in high-quality standards, aligned curricula, and supporting materials related to technology content. Without this, supporting the growth of these teachers is more challenging. Additionally, some experts recommend considering the needs of science and technology teachers separately from those of math teachers, given the significant existing focus on providing curriculum and professional learning for math teachers, particularly at a higher level of standards. This means content and instructional expertise is much more readily available and more concentrated for math than for other science and technology fields. Therefore, grouping all STEM teachers together for professional growth may mask the resource needs of certain fields, and in fact, there may have significant gaps in human capital and other resources needed to effectively support the needs of a subset of STEM fields. Urban Schools Human Capital Academy notes one of the key challenges around the ongoing professional development of STEM teachers is the limited pool of high-quality STEM mentor teachers.¹⁷

17. *REBOOT: Redefining Human Resources' Role in Supporting Great STEM Teaching*. Urban Schools Human Capital Academy. Reston, VA: Author.

WHAT HAS BEEN TRIED TO ADDRESS THE CATALYSTS, AND WHAT DO WE KNOW WORKS?

The landscape and research pertaining to teacher professional growth and collaboration opportunities during the school day points to a clear set of existing strategies to increase these opportunities for teachers. In order for teachers to have meaningful, relevant, and regular opportunities for professional growth and collaboration during the school day, greater prioritization must be placed on the importance of teacher learning, along with the presence of integrated, coherent approaches with robust roles for expert teacher leaders and sufficient time, resources, supports, and structures. A significant body of evidence supports these assertions, with research identifying the components of effective approaches and demonstrating their efficacy.

Additionally, several models exist that encompass the integrated approach identified by the research, and serve to support districts and schools with the training, tools, and technical assistance to transform their schools into learning environments for teachers. This section first describes the conditions needed to support change in this area, then describes the components of promising school-based approaches to during-the-school-day professional learning. A select number of models are also spotlighted later in this document.

A shift in beliefs and mindsets about the value of collaboration and professional growth time during the school day, and the powerful role teacher leaders can play in creating positive work environments, is needed on the part of district leaders, school leaders, and teachers. To date, education reformers have acted under the notion that system transformation could be led through structural change — that structure would beget culture — and if new processes and mechanisms are put in place, their existence would force a new mindset and culture to support their needs. Examples in the K–12 field and in other sectors have shown that real change does not happen in this way; instead, both types of change must be attended to simultaneously. Culture and mindset changes have to happen at the same time as structural changes, through efforts to build trust and garner meaningful input from stakeholders.¹⁸

School leaders must understand the power of teacher leaders in driving instructional improvement and improved student performance, and their role in facilitating teacher-leader roles. Research shows that support from school administration, including necessary levels of autonomy for teacher leaders and a clear understanding of and respect for the teacher-leader role, is a facilitator of effective teacher leadership. This is often shown through asking teacher leaders for input in decision-making and other school matters.¹⁹ At the school level, trust must be built through ongoing focus across multiple settings throughout the year as a foundation for teachers to build trust, in collaborative teams and with teacher leaders serving as experts. Research shows that cultural factors, such as shared norms around trust, penalty-free risk-taking, and continuous learning, better allow teacher leaders to do their work effectively.²⁰

Importantly, school leaders may need support in creating positive work environments within their school. For example, ERS provides significant coaching to principals on how to build community and trust as a way of building up teachers' will on the part of teachers to deeply engage in professional learning activities and to ensure the time is valuable. In fact, effective teacher collaboration requires more than simply creating the time and space for teachers to meet. Both the how and the why must be considered. Before collaboration will be effective, teachers need to have leadership, a clear focus, and to understand why they are collaborating and how it will ultimately benefit their students. As the National Institute for Excellence in Teaching states, "Right now, lack of focus and leadership is crippling PLCs."²¹ As ERS notes, if teachers do not buy into the idea that these are valid and valuable ways to spend time, they do not show up intellectually and emotionally to the collaboration time.²² An effective change-management process should involve thoughtful, intentional communication and engagement to foster buy-in from all staff, involving teachers in the design process and providing tools to engage others in their school, and to inform and get input.

Research points to the need for a coherent, integrated approach to teacher professional growth and collaboration during the school day, anchored by a shared, broad vision. In particular, effective professional learning and collaboration during the school day requires a complex set of roles, structures, and culture to be effective. School leaders must weave these components into a cohesive and clear strategy, with alignment across structures, roles, curriculum, and other initiatives. Crucially, this work must be clearly connected to the work teachers do every day. Research also shows that a shared vision for the school, set by the school leader and specifically articulating their model for distributing leadership, served to support effective teacher leadership roles.²³

The components of a coherent, integrated approach to professional learning and collaboration during the school day include: time; formal roles for teacher leaders; new, clear roles for school leaders within a

Time

Teachers need consistent, frequent, intensive interactions with their coach or teacher leader, on average one to two hours per week. However, most teachers do not receive this. A survey by the Bill & Melinda Gates Foundation found that only 24 percent of teachers report engaging in coaching or mentoring activities at least weekly,²⁴ while a survey by TNTP found that teachers report receiving roughly six hours of coaching per year. Teachers have also reported that their coaching lacks follow-up and is often curtailed before they have sufficient opportunities to practice new skills.²⁵ One example of a model that provides a more consistent and intensive teacher leadership

distributed leadership model; structures, tools, and resources; capacity building and ongoing support; and high-quality standards-aligned curriculum.

18. Interview with Bethany Little and Scott Palmer.

19. Wenner and Campbell (2017). *The Theoretical and Empirical Basis of Teacher Leadership: A Review of the Literature*, *Review of Educational Research*, 87(1), 134–171.

20. Wenner and Campbell (2017). *The Theoretical and Empirical Basis of Teacher Leadership: A Review of the Literature*, *Review of Educational Research*, 87(1), 134–171.

21. *Unleashing Teacher Leadership: How Formal Teacher Leader Roles Improve Instruction*. Santa Monica, CA: National Institute for Excellence in Teaching, 2018, 25.

22. Interview with Joy Delizo-Osborne.

23. Wenner and Campbell (2017). *The Theoretical and Empirical Basis of Teacher Leadership: A Review of the Literature*, *Review of Educational Research*, 87(1), 134–171.

structure is Public Impact’s Multi-Classroom Leader model, which ensures teams stay relatively small over time, enabling teacher leaders and teachers to truly know each teacher and understand each other’s strengths and challenges, and allowing expert teachers to work with their team members daily to change practice.

24. Bill & Melinda Gates Foundation. (2014). *Teacher Knows Best: Teachers’ Views on Professional Development*. Seattle, WA.

25. TNTP. (2015). *The mirage*. New York, NY.

Formal Roles for Teacher Leaders

The role of teacher leaders is key across examples of strong, coherent approaches to teacher professional growth. A report by the National Institute for Excellence in Teaching found that while principal support was important for collaborative teacher teams, teams facilitated by teacher leaders were more successful, because teacher leaders were able to implement new strategies in their own classrooms and could show evidence of their success, often including improved student learning.²⁶ Not unlike many other fields, the K–12 sector must more clearly identify the roles and responsibilities for each stakeholder group involved in collaborative activities, most notably for teacher leaders, and identify the right elements or criteria that qualify a teacher to coach or take on a leadership role. Existing effective models indicate teacher leaders need:

- Formal, defined roles, codified by a job description, with clear authority and accountability attached to the role. This lets everyone know what they are responsible for, as opposed to the often informal, vague roles many teacher leaders have, with no accountability, incentives, or additional pay. Accountability for student performance of all teachers on the team is seen as critical by many models, citing the importance of teacher leaders

thinking, “They’re all my students.” Research confirms clear-cut job responsibilities, ideally identified in a job description, and recognition for meeting those responsibilities, through compensation or otherwise supports effective teacher leadership.²⁷

- Multiple roles in a career path, so if they are successful, they can continue advancing without leaving teaching. Various models name different teacher-leader roles, such as coach, mentor, master teacher, facilitating teacher, and co-teachers, with different descriptions of responsibilities and ways of interacting with teachers. Schools must choose the roles in their teacher-leader career ladder as part of their system of professional learning and collaboration activities.
- Recognition for the work they are doing and their expertise, often through supplemental pay.

26. *Beyond “Job-Embedded”: Ensuring that Good Professional Development Gets Results*, National Institute for Excellence in Teaching, March 2012. Santa Monica, CA

27. Wenner and Campbell (2017). *The Theoretical and Empirical Basis of Teacher Leadership: A Review of the Literature*, *Review of Educational Research*, 87(1), 134–171.

New, Clear Roles for School Leaders as Supporters of Teacher Leadership & Through a Distributed Leadership Model, Ultimately of Teacher & Student Growth

Principals need a clear and robust role to play in supporting teacher professional growth during the school day, but also one that is feasible given their many responsibilities. Principals cannot and should not lead every collaborative team, but instead need to create a structure that distributes leadership to a cadre of teacher leaders where the principal’s role is to provide clear support and resources for teacher leaders and teams to work together effectively. Principals also need a system for staying connected to their leadership team, so they can stay abreast of developments, assess effectiveness of the teams, and provide needed resources without having to attend every meeting. In this way, teacher leaders become the liaisons between the principal and teachers, and principals must place trust in their teacher leaders while also maintaining their role as instructional leader of the school.

The Building Assets, Reducing Risks (BARR) Model provides examples of this new principal role. Principals are told that their teams will uncover all kinds of things about their school that they then have to follow up on. The principal’s primary goal is to support the process and take action when they or their teachers find something that needs to be addressed. The BARR model also notes that principal engagement in the process is key. The principal needs to stay involved to support the overall process so it does not break down. They need to make the schedule work, protect meeting times, and be there to understand and address issues that arise.

Structures, Tools, and Resources

In order for time spent on teacher collaboration and professional growth activities during the school day to be relevant, meaningful, and actionable, teacher leaders require guiding structures and tools. For example, a report by the National Institute for Excellence in Teaching found that “teams were more successful when teacher leaders were trained to use explicit protocols to guide teams through a process of identifying student learning problems, selecting instructional strategies, analyzing student work for evidence of impact, and honing strategies until they achieved results.”²⁸ Without these structures, time is often used inefficiently or on solving day-to-day issues, rather than addressing deeper matters of student and adult learning, and distractions can often get in the way.

Capacity-Building and Ongoing Support

School leaders, teacher leaders, and teachers alike need additional knowledge and skills to effectively carry out during-the-school-day professional growth and collaboration activities. In particular, teacher leaders need training and ongoing support related to adult learning, facilitative leadership, and collaboration, as well as coaching and mentoring strategies and techniques. School leaders often need capacity-building to carry out the strategic visioning and redesign process, and to set up the infrastructure needed to allow these opportunities to take place. They also may need training and ongoing support in

Actionable deliverables, clear expectations, and the use of facilitating protocols can support buy-in and ultimately make efforts more directed and effective. Structures and tools also play a large role in supporting ongoing, recurring, and/or intensive work of teacher teams. Unfortunately, research shows that many schools currently use models of teacher collaboration that have limited tools and resources for tracking collaboration, which can lead to inefficiencies, confusion, or the need to restart conversations during each subsequent meeting.

28. *Beyond “Job-Embedded”: Ensuring that Good Professional Development Gets Results*, National Institute for Excellence in Teaching, March 2012. Santa Monica, CA

how to support the teacher leaders in their building and facilitate a team structure. Research shows that external training and support for teacher leaders is an important facilitator of effective teacher leadership, including training in content, pedagogy, leadership, and adult learning. Additionally, teacher leaders also gain support networks, colleagues, and partnerships from their own professional learning experiences that are an important asset as they translate these learnings with their teacher teams.²⁹

29. *Wenner and Campbell (2017). The Theoretical and Empirical Basis of Teacher Leadership: A Review of the Literature*, *Review of Educational Research*, 87(1), 134–171.

High-Quality Standards-Aligned Curriculum

A high-quality standards-aligned curriculum is an underlying necessity for effective instruction for all students. Given that, it’s notable that several models utilizing coherent approaches to teacher professional growth and collaboration during the school day explicitly call out the critical role of a high-quality curriculum as a foundation for these opportunities to be relevant and aligned to a school’s broader instructional improvement efforts. Namely, they note that shared and high-quality content is the basis around which teachers collaborate and professional growth activities occur.

The Academy for Urban School Leadership (AUSL) places curriculum as a key component of its model, defining “high-quality professional learning as happening when (1) space and time is created for regular collaboration, feedback, and action (the learning conversation), and (2) the learning conversation is focused on what’s actually happening in the classroom with the teacher (instruction) and the content (unified, rigorous, appropriately paced).”³⁰ Similarly, ERS studied school systems with effective professional learning systems and found they utilized a “Connected Professional Learning” system including these elements: access to rigorous, comprehensive curricula and assessments aligned to college- and career-ready standards; content-focused, expert-led collaboration with sufficient time, support, and culture of trust; and frequent, growth-oriented feedback aimed at improving instructional practice.³¹

Notably, designing and implementing an integrated system, with all its component parts, requires a significant investment in time and may require additional capacity, often in the form of technical assistance or other specific capacity-building efforts. In particular, school leaders may need substantial support in leading this transformation process. Creating a shared vision and developing a clear plan takes concerted effort and skill; stepping back and redesigning a school’s master schedule is a large undertaking. In fact, Public Impact finds lack of time and other resources to complete this redesign process is often a significant barrier to instituting a new system.

Additionally, this process requires a deliberative approach. Public Impact works with teams of teachers and school leadership for several months of intensive at-elbow time, rethinking the schedule to find the time they need. Modifications are often needed during or after the first year, so leaders must think of the process of designing and implementing this complex model as a continuous improvement process that may require iteration based on learning. While there are many viable options and multiple free resources and examples of school schedules that can accommodate robust meeting time during the school day, decisions about what to use or modify in each school must be strategic, and must be formalized in school plans and structures, so intensive collaboration time is routinized.

30. <http://auslchicago.org/blog/creating-highly-effective-educators/>

31. *Karen Hawley Miles, David Rosenberg, and Genevieve Quist Green. Igniting the Learning System: How school systems accelerate teacher effectiveness and student growth through Connected Professional Learning. (2017), Educational Resource Strategies. Watertown, MA.*

SCHOOL LEADER RESPONSIBILITY FOR CREATING POSITIVE WORK ENVIRONMENTS

WHAT ARE THE CAUSES OF THE CATALYST?

Beliefs

Stakeholders across the field largely do not perceive the critical role that positive work environments for adults within schools play in driving school improvement and student learning. Therefore creating a positive work environment for teachers is not seen as a high priority by many school leaders and their managers. First, principals and state and district leaders are often unaware of the ways in which positive work environment contributes to student learning. Without recognition of the strong role they play in student learning, school leaders often do not value non-academic competencies related to school climate in general and working conditions for adults specifically.³² Researcher Richard Ingersoll found that not only do principals more frequently implement elements of instructional leadership related to accountability and teacher evaluation, but these elements were shown to have the weakest ties to student achievement. On the contrary, the elements that enhance teacher authority

and leadership had the strongest ties to student achievement, yet were implemented less frequently. This imbalance demonstrated leaders' propensity to implement accountability-related practices and highlights the likely lack of knowledge on the part of principals of the strong evidence linking aspects of working conditions, such as an atmosphere of trust and shared vision, to student achievement.³³

In fact, a large body of research demonstrates the importance of working conditions on teacher retention and student achievement. For example, recent research from the University of Chicago Consortium on School Research shows that principals' greatest influence on student achievement is through fostering strong learning climates.³⁴ These strong learning climates include multiple actions on the part of leaders to direct the working conditions, mindset, and the collective work of teachers. Research from Learning Policy

Institute has demonstrated that the top four reasons that teachers leave the profession are inadequate preparation, lack of support for new teachers, challenging working conditions, and dissatisfaction with compensation.³⁵ New Leaders' "Playmakers" report, which highlights the practices of effective school leaders, summarized the importance of teacher working conditions: "Great principals shaped their schools into places where effective teachers wanted to work and stay. Successful Fortune 100 companies have long understood the need to create positive and productive environments to keep scarce talent and maximize productivity. Effective principals understood this too, and recognized that teachers want to work in environments where they are valued, trusted, and respected as individuals. They want to work with colleagues who genuinely care about their well-being and success, and they want to work in a place where they have opportunities to develop professionally. High-performing principals attracted and kept the best staff by making sure teachers felt respected and had opportunities to grow."³⁶

School leaders may also have misconceptions about how their teachers view aspects of their work environment, and overestimate the extent to which other adults are able to positively influence the school's work environment. For example, Hughes et al. documented the disconnect between the perceptions of teachers in hard-to-staff schools about the degree of support they receive as compared to principal perceptions, with principals perceiving their support for teachers as greater than the support the teachers felt they received.³⁷ Many leaders also assume other adults in the building are organically working together and creating their own positive environments, which is often not the case. They also may rely on their staff to create positive learning environments, assuming that energy and intentions regarding aspects of working environment flows outward from teachers. Often with too little time spent in classrooms, many leaders cannot effectively maintain a true sense of the teaching and learning environment experienced by teachers, and may not have an accurate sense of the existing working conditions for their staff.

Instead, because districts focus primarily on test scores, and ultimately school leaders are held accountable to measures of student performance, principals prioritize actions more closely related to traditional methods of student and teacher performance, rather than working environment. Currently, school leaders' evaluations and school standing are primarily based on student test scores, causing leaders to focus on actions that they believe will produce measurable progress each year on achievement tests, and that provide fast, easy-to-measure indicators of improvement. On the contrary, developing positive work environments is a long-term effort, which is incongruous with conceptions of school leadership that is more often recognized and judged based on short-term outcomes. In fact, research shows that principals are more likely to implement "elements of instructional leadership aligned with enhancing high standards, teacher accountability, evaluation, and performance" and less likely to emphasize "elements that entail recognition of and support for teachers, and that are aligned with enhancing teacher 'voice' and input into decision-making," precisely the elements indicative of a positive work environment.³⁸

Figure 1: Levels of Instructional Leadership



AGREE IS DEFINED AS AVERAGE SCHOOL-LEVEL SCORES OF GREATER THAN OR EQUAL TO 3 ON THE 1-4 SCALE.
 **STRONGLY AGREE* IS DEFINED AS AVERAGE SCORES GREATER THAN OR EQUAL TO 3.5.

Structures

Making improvements in adult work environment relies on actions on the part of school leaders to design, implement, and ultimately support new structures. However, school leader responsibilities are numerous and overwhelming, and principals often have limited autonomy and control over where to focus their work. First, school leaders are often forced to pay attention to and report to their district manager on many short-term measures and other compliance-oriented markers of performance. This strong focus on compliance and things that need to be “checked off” takes precedence for most school leaders, leaving them unable to prioritize the deep work required to build a strong instructional culture indicative of a positive work environment for their teachers. In some cases, compliance mandates from the district or state can be conflicting or changing, distracting and disrupting the efforts of leaders who may be trying to focus efforts on other areas, such as building a strong work environment. Principal managers are largely similarly focused on compliance-oriented markers of performance, driving their work with school leaders and influencing how school leaders are managed and supported. As a result, school leaders often have limited flexibility and autonomy to innovate with staffing, schedules, professional learning, and other structures that translate to work environment.

District priorities and accountability pressures placed on school leaders play a strong role in dictating where attention is placed within schools. Although most leaders would acknowledge at a high level the importance of aspects of positive working conditions, such as trust between leaders and teachers and between teachers and their colleagues, “these qualities too often get squeezed out with the pressures of accountability. Such pressures can drive school leaders to impatience and anxiety, resulting in a climate of tension and fear that interferes with the learning of both children and adults alike. These schools are likely to be dreary and discouraging places, rather than the joyful learning communities we long for.”³⁹ Elaine Allensworth, in her remarks on the implications of a recent study highlighting the significant impact school leaders have on students via school climate, commented similarly that “principals are often inordinately concerned with

improving test scores, channeling that concern into a focus on the tests themselves through test prep or encouraging teaching to the test, despite a lack of strong evidence for these practices.”⁴⁰ For these reasons, many principals maintain a student-centric rather than adult-centric view, with a primary focus on student learning and creating a positive school climate for students. They do not perceive their role to be similarly focused on adult learning or working conditions.

Broadly speaking, the role of the principal is very large, placing too many demands, competing priorities, and short-term problems needing solutions on leaders. This in turn limits their capacity to address issues related to work environment. With far too many things on their plate, all or many of which are deemed priorities that must be dealt with immediately, school leaders often must be largely reactive in their work, and are often caught in “fire-fighting mode,” with limited time to work strategically and collaboratively with faculty at school. Principals also must be responsive to many stakeholder groups and individuals that have competing interests: district leaders and school board, parents, staff, and students. Meeting the needs of all of these groups is time-consuming and creates an abundance of priorities. Notably, Bain and Company’s report on transforming schools through distributing leadership responsibilities describes school principals and assistant principals as overworked and overwhelmed, leaving their efforts to support teachers fragmented and ultimately ineffective.⁴¹ Positive work environments also require relationships; however, principals are often absent from the everyday work of teachers and must focus more on administrative needs than what’s happening in the classroom. Therefore, they may lack the foundational relationships with teachers needed to enact real positive changes to teacher working environment.

A related issue is the importance of distributed leadership as a key mechanism for enacting positive changes in working conditions. A theme found across recent research is that teacher leadership, often within a model of distributed leadership, is a critical vehicle for achieving a positive school climate overall and specifically for improving working conditions for

teachers. Given the breadth of their job, principals often lack the capacity to implement a multifaceted approach to instructional improvement, including aspects of teacher working conditions, and therefore must rely on skilled, effective teacher leaders to assist with this work. Researchers also agree that cultivating leadership among teachers and creating meaningful teacher leadership roles is a critical component of

School Leader and Teacher Capacity

Even though principals ultimately are responsible for strategies to shape the work environment of their school, most do not receive the training and support required to enable them to effectively build a positive work environment in their school, and therefore often lack the necessary knowledge and skills. To begin, existing principal preparation programs do not build the capacity of school leaders to effectively promote a positive working environment. Broadly speaking, many principal preparation programs include outdated or unfocused curricula, and few provide opportunities for aspiring school leaders to practice crucial skills in authentic school settings. Many state laws or regulations that dictate principal preparation program approval requirements do not include research-based elements of effective school leader preparation.

Notably, the skills needed to create a positive work environment are different from the skills leaders traditionally focus on in leader preparation programs. Most existing principal preparation programs do not prepare principals to transition between managing students (as teachers) to managing adults. For example, Goodwin notes that principals must be prepared to lead adaptive challenges: “Creating classrooms where curiosity can flourish will be for many educators a fundamental shift in thinking about schooling and learning. Tackling such challenges requires a different kind of school leadership, one that empowers staff to engage in innovation, experimentation, and ‘failing forward’ — seeing failures as opportunities to learn and improve. Much like teachers who encourage student curiosity by asking good questions, principals guide

positive work environments for teachers. Teachers are seeking a voice in decision-making at their schools and an active role in driving the instructional improvement efforts. Yet most schools do not have authentic or effective systems in place to distribute leadership to a cadre of teacher leaders.

school teams through adaptive challenges by asking questions that prompt professional self-reflection and collaboration. In short, principals must also be curious and model the kinds of question-asking and solution-seeking behaviors they want to see among teachers and students.”⁴²

Looking beyond preparation programs, principals do not receive ongoing development and support to build their capacity to do this work. Overall, district funding and attention towards professional learning and support focuses on teacher learning rather than school leaders’ learning. The majority of districts allocate very limited, if any, funds to principal professional development. New Leaders reports that more than two-thirds of districts did not spend any of their Title II funds on professional development for school leaders.⁴³ Additionally, many principal managers do not have the mindset and orientation, nor do they have the skills and time, to be able to effectively coach principals in building a positive work environment, resulting in many principals being neglected by their district managers, especially after the first two years on the job.^{44,45,46} When principals do participate in professional development, it is usually designed for teachers rather than for school leaders, and tends to focus more on the “what” of district reform than the “how” of leading change.⁴⁷ As a result, principals receive very little support for the work of managing adults and creating a positive work environment from their managers and through the ongoing professional development they do receive.

Most principals also do not come to the principalship with the experience required to help guide them in creating a positive work environment. Given principal turnover rates, they are often inexperienced and new to the role of school leader, and so lack overall experience as a school leader and in school-level change-management processes. They also may not have had the experience of a strong, positive work environment prior to becoming a principal, so therefore do not have firsthand knowledge of what it looks like or how to create it. Given this, and the overwhelming responsibilities they face, many principals may get caught up in the day-to-day functioning of the school and spend too much time working one-on-one with individual teachers, rather than taking time to develop the structures for collaboration among staff and other systems indicative of a positive working environment for teachers.⁴⁸ With greater experience in the job and increased understanding of what constitutes positive working conditions for teachers, leaders may instead choose to direct their efforts towards building these positive environments.

Without prior firsthand experience or relevant training or support, principals often do not have the knowledge and a clear sense of the specific actions required to build a positive work environment for all teachers. Notably, multiple studies have shown that effective leaders successfully enacted strategies in multiple related areas at the same time as part of their efforts to drive a positive work environment and ultimately improve instruction, culture, and student learning. The interrelatedness of these multiple strategies made it even more important for leaders to make “plays” that served multiple areas simultaneously, seeing the areas to tackle as linked rather than discrete.

New Leaders reported that successful principals took action in each of three high-leverage areas at the same time, and “understood that the solution to one challenge could also go a long way toward resolving another. The most successful principals were vigilant in identifying ‘high-yardage plays’ that simultaneously addressed teacher development, talent management and school culture, and therefore made large strides in improving instruction.”⁴⁹ Similarly, researchers investigating the 5Essentials Model of

school improvement found that schools strong on at least three of the five essentials (Effective Leaders, Collaborative Teachers, Involved Families, Supportive Environment, and Ambitious Instruction) were 10 times more likely to show substantial gains in student learning over time than schools weak on three or more of the five essentials.⁵⁰ The Wallace Foundation, when synthesizing 20 years of learnings on effective school leadership, found that each of the five key tasks of effective leaders (including creating a climate hospitable to education and cultivating leadership) needs to interact with the other four for any one part to succeed.⁵¹ Yet knowledge on the part of schools leaders that a multifaceted strategy is needed, as well as subsequent knowledge around how to select the right high-leverage actions and implement them successfully, may be lacking in many existing leaders.

Looking beyond the design and implementation of a multifaceted strategy, school leaders often are ill-equipped to differentiate teacher support based on individual need, another component of creating positive working environments for all adults in a building. For example, Urban Schools Human Capital Academy places emphasis on principals differentiating their support based on staff characteristics and human capital lenses. They note the types of support provided, and more broadly the nature of a positive work environment, will look different for career-changers as compared to millennials or veteran teachers. While there are some aspects of working conditions that are universal, such as treating people professionally, USHCA argues that members of different staffing groups have different needs. For example, they contend that millennials desire autonomy and decision-making authority; therefore principals may need to target their efforts to build positive working conditions for teachers of this generation with a heavier emphasis on these components.^{52, 53} Additionally, the need to differentiate supports and conditions also extends to content area, indicating that STEM teachers may have different needs and desires than teachers of other subjects that must be addressed by school leaders. Many school leaders lack subject-area expertise related to STEM fields, making them less able to effectively support STEM teachers.

Resources

Principals often lack the resources needed to enact changes and positively impact teacher working conditions. Strategies to make meaningful changes to teacher work environment cost additional dollars that most principals do not have. Several research-based elements of positive teacher work environment are expensive (e.g., identifying time and space for authentic teacher leadership roles) and/or may require programs to significantly change the way they have traditionally operated. Strategies also require additional funding for design and implementation. Yet as noted earlier in this document, traditional funding models largely do not support innovative teaching roles and structures that allow teachers to more authentically engage as leaders within their schools, or allow principals to implement the multifaceted set of strategies needed to create real change in teacher working environment.

Additionally, principals lack accurate data to assess working conditions. Principals and their leadership teams need high-quality and timely measures of school climate overall, and in particular from the perspective of adults, to focus improvement efforts.⁵⁴ This is true for working conditions as well. However, currently most leaders do not have accurate data to assess working conditions to ensure they have a true sense of teachers’ perceptions and can identify strengths and areas of need. When data are collected, they can often be gamed or can be seen as high-stakes or for accountability purposes, for both leaders and teachers, making data unreliable. Notably, NewSchools Venture Fund is working now on developing rigorous, low-burden measures of non-academic competencies (i.e., SEL) with a focus on measures that are not self-reported. While this initial work is focused on student measures, their learnings may be applicable to future measures around work environment for teachers.

32. Interview with Jason Atwood

33. Richard M. Ingersoll, Philip Sirinides, and Patrick Dougherty. *Leadership Matters: Teachers’ Roles in School Decision Making and School Performance*. *American Educator*, Spring 2018, 13–17.

34. Allensworth, E.M. & Hart, H. (2018). *How do principals influence student achievement?* Chicago, IL: University of Chicago Consortium on School Research.

35. Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). *Solving the teacher shortage: How to attract and retain excellent educators*. Palo Alto, CA: Learning Policy Institute.

36. Ikemoto, G., Taliaferro, L., & Adams, E. (2012). *Playmakers: How great principals build and lead great teams of teachers*. New York, NY: New Leaders Inc.

37. Hughes, A.L, Matt, J.J., and O’Reilly, F.L. (2015). *Principal Support Is Imperative to the Retention of Teachers in Hard-to-Staff Schools*. *Journal of Education and Training Studies*, 3(1), 129–134.

38. Richard M. Ingersoll, Philip Sirinides, and Patrick Dougherty. *Leadership Matters: Teachers’ Roles in School Decision Making and School Performance*. *American Educator*, Spring 2018, 13–17.

39. Tschannen-Moran, M. & Gareis, C.R. (2015). *Principals, Trust, and Cultivating Vibrant Schools*. *Societies*, 5, 256–276.

40. Ross Weiner (2018). *Why School Climate Should Be Every Principal’s Top Priority*. Accessed via EdWeek online.

41. Chris Briery, Betsy Doyle, and Abigail Smith. (2016). *Transforming Schools: How distributed leadership can create more high-performing schools*. Bain and Company. Washington, DC.

42. Goodwin, B. (2015). *The road less traveled: Changing schools from the inside out*. Denver, CO: McREL International.

43. *New Leaders* (2017). *Prioritizing Leadership: Opportunities in ESSA for Chief State School Officers*. New York, NY: New Leaders Inc.

44. Ross Weiner (2018). *Why School Climate Should Be Every Principal’s Top Priority*. Accessed via EdWeek online.

45. Ikemoto, G., Taliaferro, L., & Adams, E. (2012). *Playmakers: How great principals build and lead great teams of teachers*. New York, NY: New Leaders Inc., 26.

46. Rowland, C. (2017). *Principal Professional Development New Opportunities for a Renewed State Focus*. American Institutes for Research. Washington, DC.

Rowland, C. (2017). *Principal Professional*

47. *Development New Opportunities for a Renewed State Focus*. American Institutes for Research. Washington, DC.

48. Allensworth, E.M., & Hart, H. (2018). *How do principals influence student achievement?* Chicago, IL: University of Chicago Consortium on School Research. 4.

49. Ikemoto, G., Taliaferro, L., & Adams, E. (2012). *Playmakers: How great principals build and lead great teams of teachers*. New York, NY: New Leaders Inc., 34.

50. <https://uchicagoimpact.org/our-offerings/5essentials>

51. Wallace Foundation. (2013). *The School Principal as Leader: Guiding Schools to Better Teaching and Learning*. New York, NY: Wallace Foundation.

52. Interview with Susan Marks.

53. Urban Schools Human Capital Academy. (2017) *Research & Readings on Retention “Lenses.”* Reston, VA: Author.

54. Ross Weiner (2018). *Why School Climate Should Be Every Principal’s Top Priority*. Accessed via EdWeek online.

54. Ross Weiner (2018). *Why School Climate Should Be Every Principal’s Top Priority*. Accessed via EdWeek online.

WHAT HAS BEEN TRIED TO ADDRESS THE CATALYST, AND WHAT DO WE KNOW WORKS?

While the problem space defining the reasons why school leaders often do not create positive work environments for teachers is robust, the solution space is less so. Existing research and knowledge within the field touches on the principal's role in creating positive working conditions, and many sources list specific actions they believe principals can take to create these environments. But while there are some ideas about the "what" of leadership practice needed to create better working environments for teachers, there is much less known about the "how." There is also limited publicly available knowledge about existing programs or models that serve to address this catalyst and have demonstrated effectiveness.

Additionally, similar to earlier statements, ideas about principal roles and leadership practices that may create positive working conditions are often derived indirectly, through broader discussions of effective leadership writ large and/or efforts to create a positive school climate for students, without directly acknowledging a connection to adult working conditions as a construct. This may demonstrate a need in the field for greater awareness and recognition of the school as a workplace, with attendant working conditions, and greater focus by key actors on specifying how school leaders can accomplish this important task and how to provide needed capacity-building and technical assistance to support their work.

Additional investigation is needed to learn more about existing models or programs, as well as the ongoing work of the many individual districts, schools, and leader preparation programs that have redesigned their models to better address this catalyst. Notably, research is ongoing in the field to identify and better document the preparation and in-service leader development programs that may be best addressing the issues described in the previous section.⁵⁵

The following paragraphs summarize existing thinking about the principal's role and actions to create a positive work environment for teachers. Additionally, the "Spotlight on Innovative Models" section provides high-level descriptions of a small number of promising models that purport to be addressing these issues.

Research centers on three key aspects of the principal's role that have a direct impact on teacher working conditions:

1. principals as overall school managers,
2. principals as instructional leaders, and
3. principals as drivers of a community and culture within their buildings that make them great places for adults to work.

Looking across these three areas points to the need for effective leaders to provide both instructional and emotional support to their teachers as part of nurturing positive work environment. The Learning Policy Institute describes this as a leadership style that is "collaborative, facilitative, and indicative of a 'leader of leaders' rather than a more traditional and top-down style."⁵⁶

First, a school's work environment is in many ways defined by the extent to which the building is managed well, as demonstrated by things like good communication, teachers having needed resources and budget, effective management of student discipline, and effective parent engagement. Principals must therefore serve as effective building managers, handling the administrative concerns and other aspects of community management that provide an environment where the trains run on time and teachers are able to focus on their students and instructional work.^{57,58} Overall effective school management also includes putting in place the systems and structures teachers need to carry out their best work with students. Allensworth et al. describe this as "systems for supporting teachers to support students," such as through structures for authentic

teacher collaboration, aligned professional learning opportunities, and ensuring appropriate supports are in place for students.⁵⁹

Second, schools with strong instructional leadership provided foremost by the principal are indicative of places where teachers have the support to master their craft, a key component of a positive work environment. Effective instructional leadership on the part of principals within a work environment viewed positively by teachers largely includes a model of distributing key leadership responsibilities to a cadre of teacher leaders, with the principal acting to manage and support the overall work of the team of leaders within the building. Allensworth et al. describe this overarching instructional leadership role as managing shared leadership, by "guiding, coordinating, and monitoring the work of teachers and leaders in the school... Principals serve as bridges across a school. They regularly monitor the progress of school efforts, keeping staff focused on school goals and helping them determine the effectiveness of their strategies."⁶⁰

Third, positive work environments for teachers are those with an overall sense of community and culture indicative of mutual respect, collegial support, and collective ownership of vision and outcomes. The Wallace Foundation describes this as a climate hospitable to education, and notes school leaders must build "a sense of school community, with the attendant characteristics. These include respect for every member of the school community; an upbeat, welcoming, solution-oriented, no-blame, professional environment; and efforts to involve staff and students in a variety of activities, many of them schoolwide." According to Wallace's research in effective leadership, such a hospitable environment will "combat teacher isolation, closed doors, negativism, defeatism, and teacher resistance."⁶¹ School leaders can promote this climate for teachers through several actions, such as promoting high levels of collegial support throughout the building, with the necessary structures and trusting environment;⁶² building collective ownership among teachers of the school vision, goals, and all students' learning; promoting a culture of adult learning among teachers and leaders whereby adults are open to

new ideas and feel safe discussing their mistakes and working together to improve^{63,64}; including teachers in decision-making and empowering them to have an active voice in school goals and how to meet them⁶⁵; and getting to really know all of their teachers, so that they are able to truly meet teachers' needs and can provide differentiated and individualized support to teachers when needed.^{66,67}

54. Ross Weiner (2018). "Why School Climate Should Be Every Principal's Top Priority." Accessed via EdWeek online.

55. For example, LPI is currently conducting case studies on leadership preparation with the desire to focus on programs that prepare leaders with the skills needed to create collaborative environments and other markers of positive teacher working conditions.

56. Learning Policy Institute. (2017). *The Role of Principals in Addressing Teacher Shortages* (research brief). Palo Alto, CA: Learning Policy Institute.

57. Learning Policy Institute. (2017). *The Role of Principals in Addressing Teacher Shortages* (research brief). Palo Alto, CA: Learning Policy Institute.

58. Simon, N. & Johnson, S.M. (2015). *Teacher Turnover in High-Poverty Schools: What We Know and Can Do*. *Teachers College Record*. 117(3), 1–36.

59. Allensworth, E.M. & Hart, H. (2018). *How do principals influence student achievement? Chicago, IL: University of Chicago Consortium on School Research*.

60. Allensworth, E.M. & Hart, H. (2018). *How do principals influence student achievement? Chicago, IL: University of Chicago Consortium on School Research*.

61. Wallace Foundation. (2013). *The School Principal as Leader: Guiding Schools to Better Teaching and Learning*. New York, NY: Wallace Foundation. 9.

62. Simon, N. & Johnson, S.M. (2015). *Teacher Turnover in High-Poverty Schools: What We Know and Can Do*. *Teachers College Record*. 117(3), 1–36.

63. <https://www.achievementnetwork.org/lff-culture-of-error>

64. <http://teachlikeachampion.com/blog/2-0-on-cfu-2-0/>

65. Learning Policy Institute. (2017). *The Role of Principals in Addressing Teacher Shortages* (research brief). Palo Alto, CA: Learning Policy Institute.

66. Ax, M., Conderman, G., & Stephens, J. T. (2001). *Principal support essential for retaining special educators*. *NASSP Bulletin*, 85(621), 66–71.

67. Interview with Susan Marks.

SPOTLIGHT ON INNOVATIVE MODELS

This research identified several organizations and models currently working to address one or more of the teacher work environment catalysts. These models are at different points in their development and implementation. Some have been implemented in multiple sites to date and are on the path towards greater scale, with rigorous evidence of improved student and teacher outcomes as a result of their work. Others are emerging and have only early-stage evidence supporting their efficacy. All are places for the field to consider and watch when contemplating broader action to address these areas. As such, we offer this not as an exhaustive or fully validated list, but instead as an initial list of models to learn from. This section provides an overview of seven models, presented in a less formal interview format.

Spotlight:

ACADEMY FOR URBAN SCHOOL LEADERSHIP (AUSL)

Q: For readers who may not be familiar with your organization and its work, please provide a brief description of your organization.

The Academy for Urban School Leadership (AUSL) is a nonprofit organization operating in partnership with Chicago Public Schools to manage 31 public schools, and is the largest and oldest teacher residency program in the nation. With this knowledge and experience, AUSL provides consultation services to school districts all across the country to further our impact on public education. To learn more about AUSL, visit www.auslchicago.org.

Q: In what ways are you/your organization ensuring teachers have sufficient high-quality, relevant opportunities for professional growth and collaboration during the school day? Why do you see this as core to the work?

When it comes to driving student achievement, research shows that teachers matter most among school-related factors. At AUSL, our theory of change

pivots on creating highly effective teachers as well as leaders. We are continuously focused on providing coherent, ongoing support for our science teachers throughout the various stages of their career, from the time they are in our Chicago Teacher Residency (CTR) program, through the induction period and beyond.

Our CTR residents benefit from multiple layers of support. Residents are paired up to promote peer-to-peer collaboration and support, they spend a year in their Mentor Teacher’s classroom learning in action, and receive coaching from an AUSL Mentor Resident Coach.

AUSL teachers in the induction phase (i.e., new to teaching in general, new to teaching science, or still getting their bearing when it comes to teaching the Next Generation Science Standards [NGSS]), have opportunities for ongoing support through our Summer Science Institute and Follow-Up Quarterly PDs. AUSL coaches also provide teachers with one-on-one support during the school day.

As our teachers progress in their careers, they have the opportunity to apply to become members of our

our Science Professional Learning Community (PLC), where members serve as thought partners as they dig into problems of practice and hone their skills as teachers and leaders. Our PLC teachers then become another layer of support for AUSL science teachers within their buildings (through leading cluster meetings and school-based professional development [PD], coplanning with grade-team colleagues, etc.) and across our schools (through leading Summer Institute and Quarterly PDs, and serving as PD classrooms in which AUSL teachers can observe high-quality instruction in action).

AUSL collaborates with National Louis University, where our CTR residents take classes and earn their master’s degree, in order to ensure a coherent vision for science teaching and learning that aligns with the PLC’s work. Moreover, CTR science mentor teachers have all been a part of the Science PLC for at least a year, which ensures our residents’ in-classroom experiences with their mentor align with their NLU coursework. Our work has been funded through a Teacher Quality Partnership (TQP) grant, shared with National Louis University, that helps to support our residency program and provides PLC teachers with stipends and compensation for leading network-level PDs.

Q: What are the key elements of your work that best enable these opportunities?

In order to design our AUSL Science PD program, we grounded our approach in the research literature. Effective professional development programs:

- Address teachers’ actual needs (*Davis et al., 2006*)
- Model the strategies that teachers are expected to implement (*Freeman, Marx, & Cimellaro, 2004*),
- Situate the learning in the teacher’s own classroom context (*Putnam & Borko, 2000*)
- Are sustained over time (*Garet, Porter, Desimone, Birman, & Yoon, 2001*)
- Foster the development of collegiality and peer collaboration (*Grossman, Wineburg, & Woolworth, 2001*)
- Allow for feedback and subsequent refinement of practice (*Prawat, 1992*)

PLCs are central to our teacher development model. Teachers at the same grade level come together six to eight times a year (during and after school) to explore an agreed-upon problem of practice by reading and discussing literature on the topic, experimenting with strategies in their own classrooms between PLC gatherings, and then coming together to engage in Studio Days in order to observe specific strategies in action in a PLC member’s classroom. AUSL curates resources around the team’s problem of practices, facilitates after school PLC gatherings and during-school Studio Days, and provides biweekly one-on-one support to PLC members as they test out their learning in their classrooms.

Studio Days are an approach to PD that the AUSL team experienced on a visit with the University of Washington (UW) Ambitious Science Teaching (AST) group (AUSL first learned about UW’s work through a 100Kin10 Meet Up grant). Studio Days are an opportunity for teachers to visit a host teacher’s classroom to experience specific strategies in action. PLC teachers observe the lesson and gather evidence of student learning by scripting student talk and collecting student work. Teachers then analyze the student data and collectively determine implications for instruction and next steps. On the same day, the PLC team return to the host teacher’s classroom to test out one to three of those cogenerated next steps and observe their impact on students.

Each year, our Science PLC focuses on one or two problems of practice and creates a product, based on their learning, that can be shared with teachers across our network through our Summer and Quarterly PDs, as well as on our AUSL Science website.

Q: Can you give one or two specific examples of what this looks like in practice?

In Year 1, we started with a team of high school teachers wondering what NGSS-aligned instruction ought to look like in the classroom, and the team found Model-Based Inquiry (MBI) and UW’s AST practices to be the secret sauce. MBI is a pedagogical approach in which students develop, test, and refine models to explain phenomena. AST is a framework of four core teaching practices that work in tandem with MBI to support

authentic science learning: 1) planning for engagement with important science ideas, 2) eliciting and working from students' ideas, 3) supporting ongoing changes in student thinking, and 4) pressing for evidence-based explanations. In pairs, PLC members used their learning around MBI and AST to develop an example unit for each science subject area.

In Year 2, a couple of middle-school teachers were recruited to join the team in order to expand our reach. The group decided they wanted to spend time honing their enactment of the AST practices. At the end of Year 2, they created "how to" guides with accompanying classroom videos illustrating their learning around four areas they found to be most high-leverage for student learning: planning units around a rich phenomenon; engaging students in developing and refining explanatory models; student-student discussion; and ensuring coherent instruction through the development and use of summary charts, which are a tool for tracking evidence/learning from sense-making activities and then applying it to the unit phenomenon.

Over time, we've expanded our impact by bringing additional middle school teachers into the fold and starting an elementary PLC. The focus of the PLCs has progressed over time, in responses to the teachers' problems of practice, following this trajectory:

1. Developing a vision for NGSS-aligned instruction (MBI/AST) and planning MBI units
2. Exploring best practices for implementing MBI/AST
3. Investigating how to assess student learning of the three dimensions of NGSS (practices, core ideas, and crosscutting concepts)
4. Experimenting with strategies aimed at supporting students to improve the quality of their written work
5. Piloting curricular resources in order to limit teacher time spent on designing units and maximize time spent on translating the curriculum into effective instruction that maximizes student learning.

A PD program is only as good as the content of that program. We owe much of our success in transforming classroom teaching and learning to the high quality and feasibility of the MBI framework and AST practices. Moreover, the PLC model of professional development enables us to ensure our PD content is well-aligned with our teachers' and our students' needs. The PLC also provides a space for teachers to become leaders with the experience and knowledge necessary to lead quality PD for colleagues across our network.

Q: What outcomes have you seen when teachers are provided these opportunities? Can you give one or two specific examples?

Analysis of student work and student discourse during Studio Days and classroom visits shows an increased ratio of student-to-teacher talk in PLC teachers' classrooms and increased use of relevant evidence and science ideas in student writing and discussion. Students are also better able to explain what they are learning about on any given day and why. Changes in teacher practice have been observed, such as 100 percent of PLC teachers teaching phenomenon-based units, engaging students in developing and refining explanatory models, and using the claim-evidence-reasoning framework to support students in constructing explanations. In addition, PLC teachers spend more time on student-to-student discussion with fewer interjections from the teacher. K-5 teachers also have increased the time they spend teaching science per week since joining the PLC.

Here is what folks in our network have had to say about the impact of our science PD program:

"Being a part of the AUSL Science PLC has helped my colleagues and I reach our students by using engaging, inquiry-based instruction. We focused on addressing big problems of instruction with research-supported best practices. My teaching has transformed from covering biology topics to creating units that are aligned with the NGSS and engage students in investigating, sense-making, and building connections in their knowledge."
(Deanna Digitale-Grider, AUSL Science Teacher)

"AUSL has completely transformed science instruction at my school. Students are now engaged in trying to understand puzzling phenomena through content. They regularly summarize their learning and make connections to other science content... Students are completely engaged and excited about what they are learning."
(Johanna Klinsky, former AUSL Assistant Principal)

Q: What are the next steps in your work? Meaning, what are you trying to figure out next in order to build on this work? Where do you see opportunities for further innovation, development, or learning?

This year our goal is to expand our science learning community further, ensuring just-in-time support for all teachers across the network, not just PLC teachers. We will be using Google Classroom to begin to cultivate an online community where teachers can share ideas, student work, questions, and needs related to MBI,

AST, and our new science curriculum. With PLC teachers at each grade level facilitating the discussion board for their same-grade colleagues, all teachers across the network will have access to ongoing support.

This year we plan to develop additional teacher leaders through PLCs at each grade band: K-2, 3-5, and 6-8. The areas teachers would like to focus on this year are: 1) access to supplemental, vetted sense-making activities aligned with each unit in our new curriculum that can be used to differentiate instruction and support deeper learning of NGSS core ideas as needed; and 2) exploring how to implement the new curriculum in ways that align with MBI and AST (e.g., developing explanatory model scaffolds for each unit that teachers can use to elicit students ideas and evidence around how and why the particular phenomenon for each unit occurs).

Spotlight:

BUILDING ASSETS, REDUCING RISKS (BARR) MODEL

Q: For readers who may not be familiar with your organization and its work, please provide a brief description of your organization.

Building Assets, Reducing Risks (BARR) is a strengths-based model that provides schools with a comprehensive approach to meeting the academic, social, and emotional needs of all students. Schools within the BARR Network harness the power of data and relationships to empower all students to thrive within and outside the classroom. Designed by an educator, the BARR model is rooted in the belief that growth is possible and within reach for every school, with the same students and the same teachers. To learn more, please visit www.barrcenter.org.

Q: In what ways are you/your organization ensuring teachers have sufficient high-quality, relevant opportunities for professional growth and collaboration during the school day? Why do you see this as core to the work?

In a BARR school, ninth-grade teachers are organized into interdisciplinary teams. A typical team may include

a language arts teacher, a social studies teacher, a science teacher, and a math teacher. Each teacher team meets at least weekly to discuss, design, and implement interventions for the students they share. Unlike many other reform models, BARR doesn't change the curriculum, testing, teacher evaluation systems, or grading system. Instead, BARR gets results by changing the relationships in ninth grade between students and teachers and by organizing ninth-grade teachers into teams or cohorts.

BARR coaches teach the teacher teams a system to use to work with their students. First, BARR uses a Google Docs spreadsheet to make it easy for the teacher teams to track student grades, attendance, discipline records, etc. Each teacher on the team also facilitates monthly social/emotional learning-type lessons in their classrooms. These interactive lessons, called I-Times, are designed to help the classroom teachers build positive relationships with their students. During the I-Times, teachers learn a great deal more about their students, and this informal and personal data is also added to the BARR spreadsheet.

Based on data collected by each member of the teacher team, teams level their students according

to need. Students are leveled as a 0 (thriving), a 1 (at least one issue to address), a 2 (multiple issues to address), or a 3 (many life-long issues to address). Teams then design and implement interventions for the level 0, level 1, and level 2 students. We have found that often a simple intervention designed and presented by someone a student cares about, and that students know cares about them, will cause students to want to help themselves and behave differently. In sum, BARR leverages relationships and builds teams of teachers who look at the whole child, using all available information and relationships to prompt kids to act differently, which leads to better attendance, engagement, and ultimately academic results.

Teachers on the teacher teams report they appreciate the structured process that BARR teaches, as the process enables them to track and/or design simple interventions for every student quickly and efficiently. The teachers often report that they feel empowered to design very specific interventions for their students who need them.

Notably, teams refer their level 3 students to a group of helping professionals in the school, which BARR calls Risk Review. The goals of Risk-Review are to connect the level 3 students and their families to community resources, since their needs are too great to resolve in one year. The Risk Review team also designs school interventions for these students.

Q: What are the key elements of your work that best enable these opportunities?

In addition to the structures and processes noted above, the I-Times are critical, as they help the teachers get to know much more about their students, and the students also learn much more about their teachers. Over the course of the school year, trust develops and relationships build. These relationships are critical. When a student begins to have difficulty, the teacher team will catch it early. Then they will design an intervention for the student. The intervention will likely work if the teacher and student have a trusting relationship. In BARR schools, these relationships are mindfully developed and then leveraged to greatly increase the likelihood that students will succeed.

Q: Can you give one or two specific examples of what this looks like in practice?

Let's say a teacher team has a student who has six missing assignments in art. None of the teachers on the team teaches art, but they all teach the student in their own class and they are tracking his progress. At their team meeting, they discuss what they know about the student, using the BARR spreadsheet, and design an intervention. In this example, the science teacher shares that he has a good relationship with the student. He coached him in soccer in middle school. The next day, the science teacher asks the student to stay after class and discusses his missing art assignments with him. The student says he has the assignments, knows how to do them, but they are at home. The teacher tells him to bring the assignments tomorrow and show them to him in his science class. If he does indeed have them and can demonstrate that he knows how to do them, the science teacher will give him a pat on the back and a few days to complete them. If he can't find them or doesn't know how to do them, the science teacher will give him a pass and have him go to the art teacher to pick up new copies of the assignments. Each situation is different, but the science teacher will use his relationship with the student to get him to complete the work.

Q: What outcomes have you seen when teachers are provided these opportunities? Can you give one or two specific examples?

Tested by the American Institutes for Research through 12 within-school randomized control trials and an 18-year longitudinal study, the BARR model has been proven to create statistically significant impacts in 19 areas of academic performance and outcomes for students, teachers, and schools.

Data show that BARR model students pass more classes, graduate at higher rates, improve in reading and math, attend school more, and get in trouble at school less. Our data also shows that teachers feel empowered when they are able to design specific interventions for students who they truly know and care about. They report having a higher degree of respect for their colleagues and a higher belief in the capacity of their

students to improve and grow. We have also found that nearly every teacher is able to successfully use the I-Time lessons to develop much-improved relationships with their students. By the 2019–2020 school year, the BARR model will be in use in over 100 schools nationwide.

Please visit our website for more information about our [results](#).

Q: What are the next steps in your work? Meaning, what are you trying to figure out next in order to build on this work? Where do you see opportunities for further innovation, development, or learning?

First of all, over the past several years, we have learned two very important things. The first is that BARR works. The second is that our trainers and coaches can

teach almost any school how to implement BARR with their current staff.

BARR has been funded by three large federal i3 (Investing in Innovation) grants. We have three years of funding remaining. We are searching for more funding so we can continue to implement the model in more schools. At that same time, we have written a business plan and are working to become a self-sustaining nonprofit. We have incorporated as a nonprofit in the state of Minnesota and have applied for 501(c)(3) status. We have formed a Board of Directors, approved our bylaws, etc. We are also working to develop a fee-for-service model.

We would also love to further study BARR’s impact on teacher retention (we know it is positive), and we are also developing an elementary version of BARR.

Spotlight:

EDUCATION RESOURCE STRATEGIES

Q: For readers who may not be familiar with your organization and its work, please provide a brief description of your organization.

Education Resource Strategies is a national nonprofit that partners with district, school, and state leaders to transform how they use resources (people, time, and money) to create strategic school systems that enable every school to prepare every child for tomorrow, no matter their race or income. Our work integrates data analysis, design, and implementation, with a focus on these five areas: school funding and portfolio, teaching, leadership, school design, and school support and accountability. ERS has partnered with more than 40 school systems since 2005, as well as several states. In all our work, we focus on the larger picture — how resources work together to create strategic systems that support strong schools.

Q: In what ways are you/your organization ensuring teachers have sufficient high-quality, relevant opportunities for professional growth and collaboration during the school day? Why do you see this as core to the work?

High-performing schools begin with a clear vision of student success and instructional quality, and then deliberately organize resources — people, time, technology, and money — to implement a coherent set of research-backed strategies to reach this vision. We call this practice [Strategic School Design](#), and for the last decade, ERS has been working with schools and school systems to develop strategic school designs that improve instruction and student learning.

While there is no one “right way” to organize resources, we’ve seen high-performing schools serving high-need students organize around [six common design essentials](#):

- 1. Instruction:** Uphold rigorous, college- and career-ready standards and use effective curricula, instructional strategies, and assessments to achieve them.
- 2. Teacher Collaboration:** Organize teachers into expert-led teams focused on the design and delivery of instruction, and provide ongoing growth-oriented feedback.
- 3. Talent Management:** Attract and retain the best teachers and design and assign roles and responsibilities to match skills to school and student need.
- 4. Time and Attention:** Match student grouping, learning time, technology, and programs to individual student needs.
- 5. Whole Child:** Ensure that students are deeply known and that more intensive social and emotional supports are integrated when necessary.
- 6. Growth-Oriented Adult Culture:** Grow a collaborative culture where teachers and leaders share ownership of a common instructional vision and student learning.

ERS works alongside principals and their leadership teams to help them create strategic school designs, often focused on creating more opportunities for professional growth and collaboration during the school day. We also work with district leaders to help change system conditions that can lead to more strategic designs.

Q: What are the key elements of your work that best enable these opportunities?

Our school design process helps school leaders identify their students' most urgent needs and then change how they allocate people, time, and money to address those needs. We begin with a comprehensive needs assessment that goes beyond the steps of a typical

improvement process to build a nuanced understanding of school need and enable school leaders to make strategic resource decisions. This means working with school leaders to analyze student data, assess instructional practice to identify instructional priorities, and analyze how a school's resources are currently used. This culminates with helping school teams identify priorities for change and research-based strategies for improving teaching and learning.

With those priorities in mind, we share different options for schools to consider, discuss the tradeoffs of each, and help school leaders make decisions that deliberately match the needs of their specific students and teachers. And then we roll up our sleeves and provide technical support to think through every possible scheduling, staffing, and budgeting configuration that will help get them there.

Q: Can you give one or two specific examples of what this looks like in practice?

One component of the comprehensive needs assessment includes reviewing administrator and teacher schedules, as well as conducting qualitative interviews and/or surveys with school staff to understand the state of *professional learning* at the school. For example, we want to learn:

- How many minutes grade level content teams spend each week collaborating
- Whether collaboration time is used well, has a clear purpose, and is supported by instructional experts
- How often teachers are observed and what the debrief conversations look like
- How much time instructional experts spend growing their expertise and preparing for and giving coaching

By learning about current practice and resource use, we can identify priorities for change, like increasing the

amount of collaboration time content teachers share weekly from 45 minutes to 90 minutes, or increasing a school's investment in instructional expertise to ensure that each teacher is observed biweekly and the observation is followed by a 20- to 40-minute conversation.

We often find that the path to addressing those priorities for change takes solving very difficult technical challenges related to a school's schedule or budget. So we work alongside school leaders and share our expertise about *scheduling* to help school leaders *find time* for collaborative planning in their schedules. Or when it comes to staffing and budgeting, we share options and discuss tradeoffs that can help schools address their priorities using their existing resources.

Q: What outcomes have you seen when teachers are provided these opportunities? Can you give one or two specific examples?

In districts that we've seen adopt and implement strong professional learning practices, we've also seen growth in student outcomes. For example, the four districts we profiled in our *"Igniting the Learning Engine"* study had growth that generally outpaced either peer districts or statewide growth. In Sanger Unified School District, an 11,000-student district in California, the district's proficiency rates were two to three times those of peer districts on the 2015 Smarter Balanced Assessment Consortium (SBAC) state assessment. For Duval County Public Schools, a 129,000-student district in Florida, students outpaced statewide growth in math for grades 3 through 5 and in reading for grade 3 on the Florida Standards Assessment in 2015–2016. Duval County Public Schools has also done well in national assessments, ranking fourth in the nation among large urban districts in fourth-grade reading and math on the 2015 National Assessment of Educational Progress Report Card.

And at the school level, we've heard numerous stories from our school leaders about how the changes they've implemented have helped their teachers. For example, we worked with a school to increase the number of experts that were available and how often they could

support teachers. That principal shared the following anecdote with us:

"By using all of our available experts, we're able to provide more frequent support. One of our new teachers asked for support around routines and expectations. We were able to have her do a guided observation of a teacher at our school, as well as visit two other schools in the district to see how other teachers approached the material. She's made significant progress since day one and is able to now spend more time on instruction, and I've seen her students using more and more academic language in the classroom as a result."

Q: What are the next steps in your work? Meaning, what are you trying to figure out next in order to build on this work?

- Continuing to develop partnerships with instructional experts and developing our own instructional expertise. Helping schools create successful structures (e.g., 90 minutes for collaborative planning or investing in instructional experts to ensure teachers are observed biweekly) is necessary, but not sufficient. It's critical that the strategic structures are executed well too. For example, this means ensuring that collaborative planning time is spent on the right things and that time is used well, or that the feedback teachers receive is focused and high-quality.
- Identifying opportunities and supporting districts to scale strategic school design. We believe in creating strategic school systems that prepare every child for success and feel an urgency to do so quickly. We're continually looking for new and different opportunities to help districts scale strategic school designs across schools, and believe that one opportunity is to help support existing experts, like principal supervisors. We are thinking deeply about how best to help principal supervisors to develop expertise about strategic resource use and incorporate it into their ongoing conversations with school leaders.

Spotlight:

INTERNATIONALS NETWORK FOR PUBLIC SCHOOLS

Q: For readers who may not be familiar with your organization and its work, please provide a brief description of your organization.

Internationals Network for Public Schools works to provide quality education for recently arrived immigrants who are English language learners (ELLs). We do this by growing and sustaining a strong national network of innovative International High Schools, while broadening our impact by sharing proven best practices and influencing policy for English language learners. To learn more about Internationals Network, please visit www.internationalsnps.org.

Q: In what ways is your organization supporting principals to build a positive work environment specifically for teachers?

Recognizing the importance of school leaders in making the Internationals model a reality in our schools, Internationals Network works intensively with new and existing school leaders, both at the teacher level as well as the administrator level, through frequent meetings, professional development, Critical Friends Groups

for school leaders, and national leadership retreats. Internationals provides ongoing support to school leadership to strengthen the structures and instruction of interdisciplinary teams, develop teacher leaders, and support teacher professional development through collaborative team structures. Leadership mentoring focuses on building the school leader's capacity to support the instructional and structural elements of the Internationals model, namely that:

- Heterogeneous groups of teachers should collaborate on behalf of a specific cohort of students.
- Experiential learning should be a part of the work environment for both adults and students in our schools.
- Groups of adults should have localized autonomy to implement solutions that make sense at the team and school level.
- There should be "one learning model for all" where all adults — teachers and staff, as well as administrators — should be organized to learn from joint inquiry.

Internationals serves schools by developing and sustaining schools with internal collaborative structures that create an ongoing professional learning community. Internationals staff makes a significant ongoing investment through all phases of school development. Specifically, we implement collaborative learning structures that enable all network schools to develop, engage in, and model best practices; provide structures to support continuous learning that refine and improve the Internationals model; and facilitate partnerships with community organizations, businesses, and foundations to support a strong platform for our schools' success.

Q: How do you think about the school leader's role in building and supporting a positive work environment?

We believe that school success rests on the principal as a collaborative leader of his or her faculty, and that effective teaching in the classroom is the result of structured collaboration focused on student success. Not surprisingly, in several outside measures, including low teacher turnover and "learning environment surveys," the staff in Internationals schools often highlight the importance of a positive work environment created by these collaborative structures led by our principals. In fact, more than half of our school leaders have lived this model of distributive leadership as prior teachers in our schools.

School leaders develop close-knit, nurturing communities that support students who may be feeling displaced as newcomers to our country. Differences among students and staff are cherished, and students are continually encouraged to celebrate their cultural and linguistic individuality while embracing their new home. The role of the school leader, in addition to their instructional leadership, is to create a collaborative working environment for teachers to support and learn from each other, so that they are continually improving their pedagogy and leadership toward improved student success. As an example, in many of our schools, time

slots that are intended for whole-staff "outside" workshops are instead given over to teacher-selected activities and collaborations that enhance the work environment for our staff.

Internationals Network believes that professional development is leadership development — that all opportunities for professional learning are in fact opportunities for educators to develop capacity to lead group efforts, and to learn and grow in the classroom, across the school, and across the network of schools. Therefore, at Internationals, professional and leadership development are not separate initiatives; they are built into all Network and school components to ensure that educators are equipped with the skills and content knowledge to help students succeed in school, college, and career. From our network-wide committees convening teacher leaders from our schools (Student-Portfolio/Assessment Committee, Professional-Development Committee, SLIFE-Supports Working Group, CTE Working Group, etc.) to our annual professional-development institutes in summer and fall, to our workshops delivered to specific network schools, our network constantly provides opportunities for school-based staff to grow in their capacities, constantly leveraging the power of the network and our model to ensure that we're supporting the school leaders in creating a positive work environment where staff members can thrive, develop, and feel valued, both inside their school and across the network.

Q: What are the key elements of your work that best enable school leaders to successfully accomplish this?

Internationals' schools are structured into interdisciplinary collaborative teams that are responsible for the academic and social/emotional supports of each individual student; they often include non-teachers and social/emotional specialists like social workers and guidance counselors, and take ownership for a specific cohort of students, often for more than one year with that same cohort. These teams promote

high-quality teaching through embedded collaborative opportunities for learning and growth for educators. Providing structures in which diverse members of the school community can develop their perspectives, discuss, and make decisions strengthens the collective governance of a school and develops the individual capacity of the members of the community. The staff, who work most closely with the students, are not divorced from the decisions that affect them and their students. Finally, those who make decisions feel a collective sense of ownership over those decisions and responsibility for ensuring that the goals behind those decisions are realized.

In addition to that team collaboration inside each school, there is purposeful heterogeneity throughout the work of each school. From the way those teams are composed of staff members of different content area, approaches, and expertise, to the way that professional development is typically planned and delivered, to the way that student groups sit in the classrooms of our school buildings, heterogeneity in many different types of criteria is embraced at each of our schools.

Q: Can you give one or two specific examples of what this looks like in practice?

Leaders work with a heterogeneous group of teachers who have varying strengths and areas of support. The structured interdisciplinary team is a purposeful example of how leaders encourage collaboration as a form of professional development and support. In addition, leaders work with their staff to differentiate the professional development for teachers, listening to and meeting their specific needs.

One example is the manner in which school leaders support differentiated professional development for teachers in their school, ensuring that supports are tailored to the community and the individual simultaneously. An example of this is underway at Pan American International High School at Elmhurst, New York, where teachers are canvassed through a school-based PD committee about their concerns related to

collaboration, so that the workshop can be tailored specifically to those concerns. Another example would be the work done at Crotona International High School in the Bronx, New York, where all teachers engaged in exploration of strategies for meaningful collaboration, but materials were personalized based on degrees of experience and expertise in this arena, with options for teachers to act as group leaders, co-facilitators, and envoys for new additions to suites of resources and strategies.

Q: What outcomes have you seen when school leaders are successful at building a positive work environment specifically for teachers? Can you give one or two specific examples?

There are numerous examples of outcomes from school leaders successfully building a positive work environment specifically for teachers. For example, as a result of building ample time, space, and autonomy into schedules for content department teams to meet, reflect, and analyze their curriculum, a trend of vertically-aligned and authentic project-based units has been established to support students in their journey toward presenting graduation portfolios that are rich, creative, and rigorous. Teachers are afforded the opportunity and authority to make meaningful decisions about their school community; this results in new initiatives and innovations. For example, as a result of such structural supports at Flushing International High School in Flushing, New York, teachers collaborated to establish new protocols, resources, and tools for deepening feedback, both from teacher to student and between students. To name one of many other examples, the localized autonomy supported by school leaders at Manhattan International in New York City, through the team structure and a committee system, has led to practitioner-led innovations in the use of technology in the classroom, ranging from new collaborative structures to the vehicle for student-led inquiry.

Among our New York City schools, we see in the yearly Learning Environment Survey that practically

all International High Schools surpass the citywide averages in several key areas that account for positive work environments for teachers: collaborative teachers, supportive environment for students and staff, effective school leadership, and trust among different school constituencies.

Q: What are the next steps in your work? Meaning, what are you trying to figure out next in order to build on this work? Where do you see opportunities for further innovation, development, or learning?

We are looking to support schools both with yearly professional development planning processes that are differentiated for subgroups of teachers, as well as with newer modules and content for specific interests and new study-group formats.

We are also increasing the variety of networking opportunities to meet the greater array of interest and needs expressed by leaders, faculty, and staff at our schools.

We are looking to support school leaders and communities by offering new avenues for networking and professional development for instructional coaches; new workshop materials have been created and offered, and space for these practitioners to share, reflect, and grow is on the horizon via a new working group structure.

Spotlight:

NEW LEADERS

Q: For readers who may not be familiar with your organization and its work, please provide a brief description of your organization.

New Leaders is a national nonprofit organization dedicated to ensuring high academic achievement for all children, especially students in poverty and students of color. We advance this mission by working hand in hand with districts to deliver tailored, evidence-based training to build dedicated, skilled leaders at every level of the education system. To amplify our impact, we also promote the policies and practices that allow great leaders to succeed.

Since 2000, we have trained 3,200 outstanding school leaders who annually reach approximately 500,000 students, in partnership with more than 30 districts and 150 charter schools. Our leaders overwhelmingly work on behalf of historically underserved students: Seventy-eight percent come from low-income households, and 87 percent are children of color. Further, our alumni community is remarkably diverse: Sixty-four percent of New Leaders are people of color, compared with just 20 percent of school leaders nationally. To learn more about New Leaders, please visit www.newleaders.org.

Q: In what ways are you/your organization supporting principals to build a positive work environment specifically for teachers?

All of our programming is based on the [Transformational Leadership Framework™](#), which distills the actions high-performing principals take to build school structures, systems, and practices that promote teacher effectiveness and accelerate student achievement. Of note, there is an entire strand of work around school culture—highlighting the important role principals play in creating a great place for teachers to work, grow, and advance in their careers. Further, under the talent management strand leaders are taught how to identify teachers for leadership roles and how to build instructional leadership teams focused on organizing teacher collaboration and professional development. Finally, we spend a significant amount of time pushing program participants to reflect on and strengthen their personal leadership skills so they can model the equity-focused, adaptive, resilient leadership that supports an environment of trust, strategic risk-taking, and sustained collaboration amongst teachers.

them with knowledge, skills, and real-world practice to build schools where teachers grow and students excel. The heart of Aspiring Principals is a yearlong residency, during which program participants learn as a cohort over the summer and through evening classes while serving as a full-time member of a school's instructional leadership team during the school year. Throughout training, expert facilitators help residents practice, refine, and master key skills as they guide and coach a team of teachers to work together to achieve success for their students.

Q: How do you think about the school leader's role in building and supporting a positive work environment?

Children need access to teachers who can help them learn to think flexibly, creatively, and critically, mastering essential knowledge as well as the skills to apply that knowledge wherever their studies and aspirations take them. And we know that more than 97 percent of teachers list school leadership as essential or very important for their career decisions — more than any other factor.

To get and keep great teachers in every classroom, across an entire school, we need great school leaders. And while transformational principals often seem like one-of-a-kind superheroes, the reality is that the success of such leaders derives from a surprisingly uniform set of high-impact leadership practices. When these practices are carried out with fidelity, our research has shown they consistently result in strong, sustained improvements for teachers and students.

How? Highly effective principals are, first and foremost, instructional leaders. They observe and coach teachers and facilitate in-school learning to help educators continuously improve their practice. They are also relentlessly focused on recruiting, developing, and retaining outstanding teachers, including by helping them grow, take on leadership roles, and advance in their careers.

And they create a great place to work. Successful principals make sure teachers know they are valued, including by deeply respecting and maximizing their time, and they foster a strong community among colleagues. Further, they delegate leadership and responsibility, and in doing so, give teachers ownership over school decisions and initiatives.

Q: What are the key elements of your work that best enable school leaders to successfully accomplish this?

The most crucial aspects of our programming are:

- **Skills for success.** We cultivate all the skills leaders need for success, such as building a team capable of enacting ambitious improvement plans and delivering feedback that propels teacher growth.
- **Learning by doing.** Program participants study and immediately apply the leadership skills that matter most as they lead a team of teachers in a real school and grapple with the unpredictable challenges leaders encounter every day.
- **Expert coaching.** Our expert facilitators have a record of distinguished success and use their deep knowledge and honed skills to provide participants with authentic, actionable, job-embedded coaching, feedback, and insight.
- **Meaningful assessment.** Because past performance is the best predictor of future success, we continuously evaluate program participants during the training year. Only those who lead measurable increases in teacher performance and student achievement earn endorsement for the principalship.

Q: Can you give 1-2 specific examples of what this looks like in practice?

When Tiffany Etheridge became principal at Belmont Elementary in Baltimore, MD, she wanted to fix everything at once: more than half of students were reading below grade level, the halls were unsafe, and 28 percent of students were chronically absent. She immediately set new expectations, including requiring teachers to engage in regular data analysis and consistently enforce behavior expectations. Though her actions were sound, she immediately encountered challenges: teachers were resentful, and some parents were actively hostile.

At a New Leaders training session, Etheridge’s advisor, who had observed her closely at school, asked key questions about steps she could take to build buy-in, helping her recognize the importance of balancing her sense of urgency with the need to engage staff and the larger school community to build a shared vision. Etheridge used skills developed during her training to create a leadership team including respected staff who, having helped informed the new approaches, spread enthusiasm for change. She supported teachers and other staff to assume leadership roles and she created sustainable structures for teachers to work together to address student needs and grow as professionals.

As a result of these efforts, positive change is underway. Chronic truancy dropped dramatically, the percentage of students reading at grade level jumped by double digits, and enrollment is climbing.

Q: What outcomes have you seen when school leaders are successful at building a positive work environment specifically for teachers? Can you give one or two specific examples?

Our alumni get results where it matters most: in schools, for kids. [An independent study by the RAND Corporation](#) found that students who attend New Leader schools outperform their peers by statistically significant margins specifically because of the strong

leadership of their New Leader principal. And a [review of school leadership](#) interventions cited New Leaders as the principal preparation program with the strongest evidence of positive impact on student achievement.

When principals intentionally cultivate a strong, positive professional culture, teachers can thrive and do their best work for kids.

New Leader David O’Hara eloquently summarized this work: “I have seen firsthand that when teachers have time to work together, drive their own learning, and craft shared plans to support our students, they are happier and more fulfilled. They are also more effective.” Further, he explains, “By making this time part of the regular school day, rather than something teachers must do above and beyond their already grueling hours, collaboration becomes a sustainable, recurring, energizing part of the job.”

For example, at Acorn Woodland Elementary School in East Oakland, California, led by New Leader Leroy Gaines, all teachers hold multiple roles, serving on the school site, instruction, or culture teams, and providing coaching and feedback to their colleagues. By supporting teacher learning, collaboration, and leadership, Principal Gaines has created a flourishing school where adults love to work. And in a district where 70 percent of teachers leave within five years, Acorn’s educators tend to depart only when moving to principal positions.

Q: What are the next steps in your work? Meaning, what are you trying to figure out next in order to build on this work? Where do you see opportunities for further innovation, development, or learning?

We know that leadership matters greatly for teachers, students, and families. And we are seeing early evidence that when crucial leadership practices are shared and supported by leaders at all levels of the system—teacher leaders, school leadership teams, principals, and principal supervisors—there is a powerful multiplier effect, and students and schools do even better.

Why? When principals are supported by leadership teams that shoulder leadership responsibilities and by supervisors focused on coaching rather than compliance, their job becomes more manageable and sustainable — and they are more effective.

When we began seeing how effective shared, aligned leadership models were in our most successful schools and networks, we knew we had to update our approach. In recent years, we’ve expanded beyond our evidence-based principal preparation program to deliver programming that meets the distinct needs of teacher leaders, instructional coaches, assistant principals, principals, and principal supervisors, helping them grow as individual leaders and together as leadership teams. Now partners can come to us with the identified

learning gaps of their educational workforce, and we can provide specific leadership content and tailored delivery methods to help them reach their goals.

This shift has been challenging, yet necessary — and we still have much to learn. Happily, we are not alone in this work. There is growing interest across the field in shared leadership models, and emerging research confirms that aligning and dispersing strong leadership practices at all levels of the education system can help us more rapidly advance our goals for school and student success.

Spotlight:

PUBLIC IMPACT'S OPPORTUNITY CULTURE

Q: For readers who may not be familiar with your organization and its work, please provide a brief description of your organization.

Public Impact's mission is to improve education dramatically for all students, especially low-income students, students of color, and other students whose needs historically have not been well met. We are a team of professionals from many backgrounds, including former teachers. We are researchers, thought leaders, tool-builders, and on-the-ground consultants who work with leading education reformers. To learn more about Public Impact, please visit www.publicimpact.com.

Q: In what ways are you/your organization ensuring teachers have sufficient high-quality, relevant opportunities for professional growth and collaboration during the school day? Why do you see this as core to the work?

Built-in time during the school day for collaboration is a key principle of Public Impact's Opportunity Culture initiative, and one of the most popular aspects teachers

mention in interviews! When a school or district creates an Opportunity Culture, it extends the reach of excellent teachers and their teams to more students, for more pay, within regular budgets. Collaborative teams are at the heart of this, led by excellent teacher-leaders known as multi-classroom leaders, or MCLs. MCLs lead a small teaching team, providing intensive, on-the-job, weekly — if not daily — coaching and feedback, co-planning, co-teaching, modeling, and data analysis leadership. MCLs also work directly with students on the team by teaching a class or by pulling out small groups for intensive help.

In interviews, teachers overwhelmingly express appreciation for the support provided by their MCL, providing comments such as:

- “The best part of working in an Opportunity Culture is the support.”
- “I’ve never had so much support in all my teaching career.”
- “This has been the most feedback and constructive criticism in creating this teacher that I’ve always aspired to be, and now I have the support to do it.”

More extensive interviews with teachers, where they describe their love for this support model, can be found in these [Opportunity Culture Voices on Videos](#).

But Opportunity Culture does more than make teachers happy: It moves the needle dramatically on student growth. A 2018 [American Institutes for Research–Brookings Institution study](#) showed that teachers who were, on average, at the 50th percentile in student learning gains and then joined teams led by MCLs (who had prior high growth as teachers) produced learning gains equivalent to those of teachers from the 75th to 85th percentile in math, and in six of the seven statistical models, from 66th to 72nd percentile in reading. (This study meets ESSA Evidence Level 2.)

Q: What are the key elements of your work that best enable these opportunities?

An Opportunity Culture is based on five core principles that Opportunity Culture districts and schools must follow. Notably, Principle 4 instructs schools to “[p]rovide protected in-school time and clarity about how to use it for planning, collaboration, and development.” When school teams, composed of teachers and administrators at each implementing school, design their plans for an Opportunity Culture, we work with them to create schedules that carve out time for team collaboration and one-on-one collaboration, coaching, and feedback between an MCL and a team teacher. Additionally, Principle 5 calls for matching authority and accountability to each person’s responsibilities — and in the case of an MCL, that means taking formal accountability for the learning outcomes of all the students on the team.

Because of this formal accountability, team teachers can trust that the support and collaboration they receive from their MCL will be genuine and in-depth because, unlike traditional coaches or facilitators, their MCLs have “skin in the game.” MCLs also have small enough teams — five to six teachers on average — that they can truly get to know each team member’s strengths and challenges and provide intensive support.

Contrast that with a schoolwide coach, principal, or assistant principal charged with supporting 20, 30, or even more teachers.

Q: Can you give one or two specific examples of what this looks like in practice?

An MCL who does not teach a specific class of students will have intensely scheduled days that may include: preparing lesson plans for her team of first- and second-year middle school teachers; observing her teachers deliver a lesson, planning for a post-observation conference and holding that conference; co-teaching a lesson, pulling out a small group of students for instruction, or modeling a lesson in one class block that the teacher can then deliver in the next block; holding a team meeting in which the teachers practice delivering a lesson; analyzing student data for a team meeting to adjust instruction according to the data; participating in an instructional leadership team meeting (with the school principal and other MCLs); and receiving her own observation, coaching, and feedback from the principal or instructional assistant principal. (Our “days in the life” [vignette](#) offers an in-depth look at one MCL’s experience.)

An MCL who teaches his own class of students may have an assistant known as a “reach associate” who takes on noninstructional tasks or monitors students as they work in small groups or for age-appropriate times online to allow the MCL to have school-day time to lead the team as above.

Q: What outcomes have you seen when teachers are provided these opportunities? Can you give one or two specific examples?

As noted earlier, the recent [AIR-Brookings study](#) showed very strong math gains for teachers on teams led by MCLs in Opportunity Culture schools. Those teachers, who on average were at the 50th percentile of producing student growth prior to joining those teams, surged to the 75th and 85th percentiles once on

the teams. In other words, average teachers taught like excellent teachers on these teams.

In addition to this rigorous evaluation data, we have a robust set of data from both teachers and MCLs that speaks to the outcomes of the model. In interviews, teachers tell us they are thrilled to have this support and collaboration, and MCLs similarly are equally delighted to have a way to move up in their profession without moving out of the classroom and away from the students they love. It takes more training and different skills to lead teachers, of course, than to lead students to success, but with the in-depth, ongoing training that Public Impact provides and districts supplement, MCLs have been able to share their successful strategies and knowledge of how to teach and connect with students in 22 sites in nine states so far — and that’s just the first five years of Opportunity Culture implementation.

Overall, surveys show that Opportunity Culture is popular with teachers; 97 percent of MCLs in Opportunity Culture roles said they would like Opportunity Culture to continue in their schools next year. Most staff surveyed reported that Opportunity Culture has had a positive impact on staff collaboration, student achievement, and school culture.

Q: What are the next steps in your work? Meaning, what are you trying to figure out next in order to build on this work? Where do you see opportunities for further innovation, development, or learning?

One question is how to extend these opportunities to more teachers and students much faster. We’re increasingly seeking out the chance to partner with states, multi-district consortia, and large districts to enable this kind of scale. Readers, please [connect us](#) with interested system leaders!

We track a variety of data to understand what works well and what needs improvement in Opportunity Culture schools, through surveys, student results, independent research, and interviews and site visits. We use all that feedback to continue to improve our materials, tools, resources, and direct guidance that we provide to Opportunity Culture sites, as this initiative continues to expand to new states, districts, and schools. We know that providing and truly protecting in-school time for in-depth collaboration continues to be a challenge for schools, with constant pressures to break into that time for other needs. We are focused on helping schools confront those challenges as they shift to new roles in an Opportunity Culture, as well as on providing ongoing, practical training for all Opportunity Culture educators.

In all these improvement efforts, a priority for us is engaging the educators who are leading this work in schools. They’re the strongest advocates of spreading these opportunities to more teachers and students, and they have great insights about how to make these roles work in schools.

Spotlight:

UCHICAGO IMPACT’S 5ESSENTIALS SYSTEM

Q: For readers who may not be familiar with your organization and its work, please provide a brief description of your organization.

UChicago Impact is one of four units within the [University of Chicago’s Urban Education Institute \(UEI\)](#), which bridges education research and practice to foster greater equity and excellence in public schooling. The mission of UChicago Impact is to empower educators to use research and actionable data to improve practices that promote positive student outcomes. UChicago Impact develops and implements systems of support that are designed to improve teaching, learning, and school leadership nationwide, including the 5Essentials System for strengthening school culture and climate and STEP System for fostering literacy.

Q: In what ways is your organization supporting principals to build a positive work environment specifically for teachers?

UChicago Impact’s 5Essentials System helps school leaders organize, prioritize, and evaluate what education research shows matters most in achieving sustainable

school improvement through student, teacher, and parent surveys, in-depth survey analysis, individualized reports, and supports for school leadership teams. It gives principals data and insight into their schools’ organizational strengths and areas of opportunity across the five essential factors decades of research have revealed are necessary for school improvement: Effective Leaders, Collaborative Teachers, Involved Families, Supportive Environment, and Ambitious Instruction.

As a part of our [5Essentials Leadership Development](#) work, our organization partners with more than 25 schools across Chicago to provide consistent and context-specific leadership team coaching on many of these themes. Historically, school improvement efforts have primarily focused on technical factors of school improvement, such as curriculum and assessment. Both the 5Essentials survey and our leadership coaching provide additional data and support on the adaptive aspects of school improvement that foster a positive work environment. This includes helping school leaders organize effective and purposeful teacher teams and opportunities for collaboration, as well as reflect on the leadership actions that facilitate relational trust and distributed leadership. Our team coaches school leaders

to build the critical skills, knowledge, and mindsets to ensure the long-term sustainability of improvement at a school. At our partner schools, this often involves coaches working with school leaders to incorporate teacher input to plan professional learning sessions and to design exercises and activities that allow the staff to participate in the creation of a shared vision, mission, and goals.

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Q: How do you think about the school leader's role in building and supporting a positive work environment?

In addition to setting the vision for instruction and student culture, school leaders also must intentionally craft and cultivate staff culture. In a [recent research brief](#), our colleagues at the UChicago Consortium found that schools with strong leaders encourage and plan for teacher ownership for moving school goals forward. It is this distributed leadership model that invests the staff in a leader's overall school vision because the teachers have a voice in shaping and implementing school priorities. Accountability shifts from the principal to teachers.

School leaders also develop structures for collaboration among staff to advance the capacity of the school around shared priorities. Structured, purposeful collaboration encourages a mindset among staff that "we work in schools, not classrooms." It is this collective responsibility that limits the competitive, siloed nature of a school work environment that too often characterizes schools.

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Q: What are the key elements of your work that best enable school leaders to successfully accomplish this?

The book *Organizing Schools for Improvement* codified and established the five essentials factors that drive improvement. Key questions from the book related to a positive work environment are:

- How do I incorporate teacher influence in decisions?

- How do I align my improvement efforts to ensure coherence?
- How do I facilitate relational trust?

5Essentials Leadership Coaches push school leaders to reflect on these environmental questions throughout the year. Coaches then engage school leaders in short-term and long-term cycles of continuous improvement around key priorities. In practice, this means we co-plan and co-design teacher team meeting agendas, professional learning sessions, and staff culture-building activities. We observe and debrief these team meetings with leaders so that they can reflect on their leadership actions. UChicago Impact also helps schools collect formative data so that leaders can evaluate their progress and make the necessary adjustments.

Schools require different supports to create a positive work environment. A one-size-fits-all, formulaic approach to a uniform program or social activity calendar does not address the nuanced needs of a particular school community. UChicago Impact's model of support is unique because it is contextualized to each school's needs and is problem-centered. Our team develops a customized coaching plan that highlights one or two areas of focus, based on what 5Essentials Survey data reveals about a school's strengths and areas of opportunity that establish a narrow focus and set of improvement goals.

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Q: Can you give one or two specific examples of what this looks like in practice?

At one UChicago Impact partner school, our team helped the principal engage the staff in several rounds of high-level school-improvement planning and also helped cultivate distributed leadership within teacher team meetings. This included co-designing a whole-staff session during back-to-school professional development that empowered the staff to draft and create a new school vision and mission statement. The leadership team synthesized staff responses and solicited additional feedback on the vision and mission to ensure that teacher voice guided this

process. Additionally, at this partner school, teacher team meetings had been primarily facilitated by the school leader. In order to grow teacher influence and leadership, our team co-led skill building meetings with the teacher-led Instructional Leadership Team so that they were equipped to facilitate teacher team meetings independent of the administration and could tailor the content to their specific grade-level band.

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Q: What outcomes have you seen when school leaders are successful at building a positive work environment specifically for teachers? Can you give one or two specific examples?

During the 2017–2018 school year, the school leader at one of our partner schools engaged in a variety of strategies to improve teacher leadership, create safe spaces for adults to influence trust, and promote greater collaboration among teachers. The school leader, with UChicago Impact's support, designed an Instructional Leadership Team Retreat, where the team collectively analyzed both academic and culture data, identified root causes, and set goals for the year. Since the teacher leaders were involved in this process, there was a greater level of buy-in across the staff. The school leader built the school schedule to increase the amount of time teachers were able to work together in teams. Each grade level had regularly scheduled time to celebrate successes, problem solve challenges, and determine the best supports for students both academically and emotionally. The school leader also held an open forum during staff meetings, where teachers could voice any concerns they had in an effort to maintain clear and honest communication between leaders and staff.

The school moved from Not Yet Organized to Well Organized on the 5Essentials Survey and experienced a 43-point growth (which represents roughly two standard deviations of change) in the "Collaborative Teachers" Essential area from 2016–2017 to 2017–2018. Additionally, there was a reduction in out-of-school suspensions, along with fewer and less severe student infractions.

Q: What are the next steps in your work? Meaning, what are you trying to figure out next in order to build on this work? Where do you see opportunities for further innovation, development, or learning?

UChicago Impact is designing different tools and resources that help leadership teams monitor and analyze the progress of teacher- and leader-level changes. Improving the work environment for teachers means a change in the cultural and technical ways that both leaders and teachers operate and organize. This includes, for example, changing the structure and purpose of grade-level teams or the ways in which leaders leverage teacher voice. Assessing these changes, so that schools can determine what improvement efforts are working, which ones are not, and what adjustments need to be made, is exceptionally difficult. Schools and districts have a wealth of student-level data. However, robust, meaningful, and objective data that captures changes in adult practices is infrequently used to drive school improvement.

To solve this challenge, our organization is developing short, on-demand mini-surveys aligned to the 5Essentials Survey and open-ended qualitative surveys, and is also facilitating focus group to provide leadership teams with a greater depth of understanding root causes of school improvement challenges. Additionally, our organization designed research-based rubrics that help school leaders self-assess their areas of strength and growth relative to key school improvement practices and processes. Much of this work is based on the [Carnegie Foundation for the Advancement of Teaching's](#) emphasis on the need for the field to more consistently adopt practical measurement tools for improvement, not accountability, purposes. The richer and more actionable data we get from these tools, the more effectively we can align our supports and interventions to meet the needs of teachers and schools.

RESEARCH SOURCES

BRAIN TRUST ADVISORY MEMBERS & INTERVIEWEES

A Brain Trust of partners acted as advisors and thought-partners throughout this research. Specifically, they gave input on the research plan and implementation, provided feedback on research findings to ensure accuracy and relevance, and contributed feedback to the recommended collaborative actions 100Kin10 developed in response to the needs identified. The Brain Trust is composed of individuals representing partner organizations and teachers in 100Kin10's Teacher Forum.

- Megan Allen, National Network of State Teachers of the Year
- Teresa Barnett, Community Resources for Science
- Alissa Berg, Academy for Urban School Leadership
- Alexandra Broin, New Leaders
- Marjorie Brown, American Federation of Teachers
- Kim Cherry Burnett, District of Columbia Public Schools
- Adrienne Go-Miller, Elkhorn School (100Kin10 Teacher Forum)
- Michelle Gough, Project Lead The Way
- Kathy Hontz, Plumstead Christian School & National Writing Project (100Kin10 Teacher Forum)
- John Keller, University of Colorado
- Susan Marks, Urban Schools Human Capital Academy
- Shelly Masur, CDE Foundation
- Darcy Moody, Maricopa County Education Service Agency
- Ruthie Ousley, Teach For America
- Shael Polakow-Suransky, Bank Street College of Education
- Heidi Ragsdale, West Middle School STEM (100Kin10 Teacher Forum)
- Joy Schwartz, Beaumont Independent School District (100Kin10 Teacher Forum)
- Jason Sullivan, STEMteachersNYC
- Sandy Watkins, Battelle
- Emily Welch, New Teacher Center
- Michele Wiehagen, School District of Hillsborough County (100Kin10 Teacher Forum)

Over the course of this research, interviews were conducted with the following sources:

- Jason Atwood, NewSchools Venture Fund
- Desiree Carver-Thomas, Learning Policy Institute
- Joy Delizo-Osborne, Education Resource Strategies
- Bryan Hassel, Public Impact
- Bethany Little, Education Counsel
- Susan Marks, Urban Schools Human Capital Academy
- Rob Metz, BARR Center
- Scott Palmer, Education Counsel

REFERENCE LIST

- Academy for Urban School Leadership. *Unifying an Ecosystem of Coaches*. Retrieved from <http://auslchicago.org/blog/unifying-an-ecosystem-of-coaches>
- Ax, M., Conderman, G., and Stephens, J.T. (2001). *National Association of Secondary School Principals. Principal Support Essential for Retaining Special Educators*. Retrieved from <http://journals.sagepub.com/doi/pdf/10.1177/019263650108562108>
- Backes, B., and Hansen, M. (2018). *National Center for Analysis of Longitudinal Data in Education Research. Reaching Further and Learning More: Evaluating Public Impact's Opportunity Culture Initiative*. Retrieved from <https://caldercenter.org/publications/reaching-further-and-learning-more-evaluating-public-impacts-opportunity-culture>
- Battelle Education. (2015). *Teacher Professional Development Program: Professional Development for New STEM Teachers*. Retrieved from https://issuu.com/battelleeducation/docs/teacher_professional
- Bierly, C., Doyle, B., and Smith, A. (2016). *Bain and Company. Transforming Schools: How Distributed Leadership Can Create More High-Performing Schools*. Retrieved from <https://www.bain.com/insights/transforming-schools>
- Borman, T.H., Bos, H., O'Brien, B., Park, S.J., and Liu, F.: *American Institutes for Research; Corsello, M.: University of New England; Jerabek, A.: St. Louis Park School District*. (2018). *American Institutes for Research. Impacting 9th-Grade Educational Outcomes: Results From a Three-Year Randomized Controlled Trial*. Retrieved from <https://www.barrcenter.org/wp-content/uploads/2018/03/AIR-SREE-2018-BARR.pdf>
- Boston Consulting Group. (2015). *Bill & Melinda Gates Foundation. Teachers Know Best: Teachers' Views on Professional Development*. Retrieved from <http://k12education.gatesfoundation.org/resource/teachers-know-best-teachers-views-on-professional-development>
- Bottoms, G., and Fry, B. (2001). *Southern Regional Education Board. The District Leadership Challenge: Empowering Principals to Improve Teaching and Learning*. Retrieved from <https://www.wallacefoundation.org/knowledge-center/Documents/District-Leadership-Challenge-Empowering-Principals.pdf>
- Desravines, J., Aquino, J., and Fenton, B. (2016). *New Leaders. Breakthrough Principals, Transformational Leadership Framework*. Retrieved from <https://newleaders.org/wp-content/uploads/2018/02/2016.TransformationalLeadership-Framework.pdf>
- District of Columbia Public Schools. *LEAP Scheduling Policies and Best Practices*. Retrieved from <https://www.erstrategies.org/cms/files/3492-leap-scheduling-policies-and-best-practices.pdf>
- Gonney, A., and Malagic, E. (2018). *Academy for Urban School Leadership. Creating Highly Effective Educators*. Retrieved from <http://auslchicago.org/blog/creating-highly-effective-educators> and <http://auslchicago.org/blog/creating-highly-effective-educators-part-2>
- Goodwin, B. (2015). *McREL International. The Road Less Traveled: Changing Schools From the Inside Out*. Retrieved from <https://files.eric.ed.gov/fulltext/ED568894.pdf>
- Herman, R., Gates, S.M., Arifkhanova, A., Barrett, M., Bega, A., Chavez-Herrias, E.R., Han, E., Harris, M., Migacheva, K., Ross, R., Leschitz, J.T., and Wrabel, S.L. (2017). *RAND Corporation. School Leadership Interventions Under the Every Student Succeeds Act: Evidence Review (Updated and Expanded)*. Retrieved from https://www.rand.org/pubs/research_reports/RR1550-3.html
- Hughes, A., Matt, J., and O'Reilly, F. (2015). *Journal of Education and Training Studies*.
- Ikemoto, G., Taliaferro, L., and Adams, E. (2012). *New Leaders. Playmakers: How Great Principals Build and Lead Great Teams of Teachers*. Retrieved from <https://newleaders.org/wp-content/uploads/2016/09/Playmakers.pdf>
- Ingersoll, R., Sirinides, P., and Dougherty, P. (2018). *American Educator. Leadership Matters: Teachers' Roles in School Decision Making and School Performance*. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1173452.pdf>
- Johnson, S.M., Kraft, M.A., and Papay, J.P. (2012). *Teachers College Record. How Context Matters in High-Need Schools: The Effects of Teachers' Working Conditions on Their Professional Satisfaction and Their Students' Achievement*. Retrieved from <http://www.tcrecord.org/content.asp?contentid=16685>
- Kaka, S.J., Mitchell, R., and Clayton, G. (2018). *National School Boards Association. Fixing the Educator Shortage at the District Level*. Retrieved from <https://www.nsba.org/newsroom/american-school-board-journal/asbj-august-2018/fixing-educator-shortage-district-level>
- Kelemen, M., and Fenton, B. (2016). *New Leaders. Redesigning Principal Preparation: A Work in Progress at the University of Missouri at St. Louis*. Retrieved from <https://newleaders.org/wp-content/uploads/2016/09/Redesigning-Principal-Preparation-UMSL.pdf>
- Knapp, M.S., Copland, M.A., Honig, M.I., Plecki, M.L., and Portin, B.S. (2010). *Wallace Foundation. Learning-Focused Leadership and Leadership Support: Meaning and Practice in Urban Systems*. Retrieved from <https://www.wallacefoundation.org/knowledge-center/Documents/Focused-Leadership-and-Support-in-Urban-Systems.pdf>
- LaPointe, M., Darling-Hammond, L., and Meyerson, D. (2007). *Stanford Educational Leadership Institute. Preparing School Leaders for a Changing World: Case Studies of Exemplary Programs*. Retrieved from <https://www.wallacefoundation.org/knowledge-center/Documents/preparing-school-leaders-case-studies.pdf>
- Learning Policy Institute. (2017). *The Role of Principals in Addressing Teacher Shortages (Research Brief)*. Retrieved from <https://learningpolicyinstitute.org/product/role-principals-addressing-teacher-shortages-brief>
- Miles, K., and Wiener, R. (2017). *The 74*. In Washington, D.C., a Road Map for Reinventing Professional Development in Schools. Retrieved from <https://www.the74million.org/article/miles-wiener-in-washington-dc-a-road-map-for-reinventing-professional-development-in-schools>
- Miles, K., Ferris, K., and Quist Green, G. (2017). *Education Resource Strategies. Designing Schools That Work: Organizing Resources Strategically for Student Success*. Retrieved from <https://www.erstrategies.org/cms/files/4004-designing-schools-that-work.pdf>
- Miles, K., Rosenberg, D., and Quist Green, G. (2017). *Education Resource Strategies. Connected Professional Learning for Teachers*. Retrieved from https://www.erstrategies.org/tap/connected_professional_learning
- National Center on Education and the Economy. (2017). *Empowered Educators: How High-Performing Systems Shape Teaching Quality Around the World. Developing High-Quality Teaching, Policy Brief*. Retrieved from <http://ncee.org/wp-content/uploads/2017/02/ProfLearningPolicyBrief.pdf>
- National Institute for Excellence in Teaching. (2012). *Beyond "Job-Embedded": Ensuring That Good Professional Development Gets Results*. Retrieved from https://www.niet.org/assets/PDFs/beyond_job_embedded_professional_development.pdf
- National Institute for Excellence in Teaching. (2014). *TAPping Into STEM Instruction*. Retrieved from <https://www.niet.org/assets/Publications/tap-in-focus-2014-tapping-into-stem.pdf>
- National Institute for Excellence in Teaching. (2017). *Research Overview: Key Findings From 10 Studies of the TAP System*. Retrieved from <https://www.niet.org/assets/Publications/tap-research-10-study-summary.pdf>
- National Institute for Excellence in Teaching. (2017). *TAP Research Summary – Examining the Evidence for the Impact of TAP: The System for Teacher and Student Advancement*. Retrieved from <https://www.niet.org/assets/Publications/tap-research-summary-1217.pdf>
- National Institute for Excellence in Teaching. *The National Institute for Excellence in Teaching Gets Results*. Retrieved from <https://www.niet.org/assets/success-stories/tap-in-focus-niet-gets-results.pdf>
- National Institute for Excellence in Teaching. *The Teach Factor Report: Unleashing Teacher Leadership*. Retrieved from <https://teachfactor.niet.org/resources#teach-factor-report>
- New Leaders*. (2017). *Prioritizing Leadership: Opportunities in ESSA for Chief State School Officers*. Retrieved from https://newleaders.org/wp-content/uploads/2016/10/PrioritizingLeadership_OpportunitiesESSAChiefStateSchoolOfficers.pdf
- New Teacher Center. (2016). *High-Quality Mentoring and Induction Practices*. Retrieved from <https://newteachercenter.org/wp-content/uploads/high-quality-mentoring-induction-resource.pdf>
- New Teacher Center. (2018). *Mentor Practice Standards*. Retrieved from <http://info.newteachercenter.org/576393/2018-08-14/346x78b>
- New Teacher Center. (2018). *School Leadership Counts Practice Brief: Instructional Leadership for Student Success*. Retrieved from <https://info.newteachercenter.org/576393/2018-08-21/341yxkd>
- New Teacher Center. (2018). *Teacher Induction Program Standards*. Retrieved from <https://info.newteachercenter.org/576393/2018-08-14/3476ddg>
- O'Hara, D. (2016). *WNYC. Opinion: Teachers Should Not Be Lonely at Work*. Retrieved from <https://www.wnyc.org/story/opinion-teachers-should-not-be-lonely-work>
- Pemberton, D., and Ross, D.D.: *University of Florida Lastinger Center; Crow, T., Hirsh, S., Joyce, B., and Killion, J.: Learning Forward; Dean, S., Hassel, B.C., Hassel, E.A., and King, K.: Public Impact*. (2016). *Coaching for Impact: Six Pillars to Create Coaching Roles That Achieve Their Potential to Improve Teaching and Learning*. Retrieved from <https://learningforward.org/docs/default-source/pdf/coaching-for-impact.pdf>
- Pippert, K., and Fenton, B. (2016). *New Leaders. Principal Supervisor Selection and Development Toolkit*. Retrieved from <https://newleaders.org/wp-content/uploads/2016/12/Principal-Supervisor-Selection-and-Development-Complete-Toolkit.pdf>
- Pitt County (North Carolina) Schools. (2015). *Teacher Professional Learning Handbook*. Retrieved from <https://www.scribd.com/document/190506593/PCS-Professional-Learning-Handbook-8-19-13>
- Podolsky, A., Kini, T., Bishop, J., and Darling-Hammond, L. (2016). *Learning Policy Institute. Solving the Teacher Shortage: How to Attract and Retain Excellent Educators*. Retrieved from <https://learningpolicyinstitute.org/product/solving-teacher-shortage>
- Principal Support Is Imperative to the Retention of Teachers in Hard-to-Staff Schools. Retrieved from <https://eric.ed.gov/?id=EJ1054905>
- Public Agenda. (2017). *Teacher Collaboration in Perspective: A Discussion Guide for Teachers and Principals*. Retrieved from http://www.in-perspective.org/files/PublicAgenda_TeacherCollaborationInPerspective_ADiscussionGuide_2017.pdf
- Public Agenda. (2017). *Teacher Collaboration in Perspective: Critical Questions for Superintendents and School Board Members*. Retrieved from http://www.in-perspective.org/files/PublicAgenda_TeacherCollaborationInPerspective_CriticalQuestions_2017.pdf
- Public Impact (2017). *Opportunity Culture: Introduction for Policymakers and Advocates*. Chapel Hill, NC: Author.
- Public Impact. "Opportunity Culture." <http://publicimpact.com/opportunity-culture>
- Public Impact. (2014). *Redesigning Schools: Models to Reach Every Student With Excellent Teachers*. Retrieved from http://opportunityculture.org/wp-content/uploads/2014/04/Time-Time_Swap_School_Model-Public_Impact.pdf
- Public Impact. (2014). *Seizing Opportunity at the Top II: State Policies to Reach Every Student With Excellent Teaching*. Retrieved from <https://files.eric.ed.gov/fulltext/ED560185.pdf>
- Public Impact. (2014). *Teacher-Led Professional Learning: Finding Time for Professional Learning*. Retrieved from http://opportunityculture.org/wp-content/uploads/2014/07/Finding_Time_for_Professional_Learning-Public_Impact.pdf
- Public Impact. (2015, updated 2018). *The Whole Package: 12 Factors of High-Impact Teacher-Leader Roles*. Retrieved from http://publicimpact.com/web/wp-content/uploads/2015/11/The_Whole_Package_12_Factors_of_High-Impact_Teacher-Leader_Roles-Public_Impact.pdf
- Public Impact. *Example Schedules for School Models*. Retrieved from <http://opportunityculture.org/reach/schedules>
- Public Impact. *Opportunity Culture Design Toolkit*. Retrieved from <https://opportunityculture.org/opportunity-culture-toolkit>
- Public Impact. *Time-Technology Swaps*. <http://opportunityculture.org/reach/time-tech-swaps>
- Public Impact. *Using Excellent Teachers' Time Wisely*. Retrieved from <http://opportunityculture.org/teachers-time>
- Rosenberg, D., Daigneau, R., and Galvez, M. (2018). *Education Resource Strategies. Finding Time for Collaborative Planning*. Retrieved from <https://www.erstrategies.org/cms/files/3876-finding-time-for-collaborative-planning.pdf>

Rowland, C. (2017). *American Institutes for Research. Principal Professional Development: New Opportunities for a Renewed State Focus*. Retrieved from <https://www.air.org/sites/default/files/downloads/report/Principal-Professional-Development-New-Opportunities-State-Focus-February-2017.pdf>

Schleifer, D., Rinehart, C., and Yanisch, T. (2017). *Public Agenda. Teacher Collaboration in Perspective: A Guide to Research*. Retrieved from http://www.in-perspective.org/files/PublicAgenda_TeacherCollaborationInPerspective_AGuideToResearch_2017.pdf

Simon, N.S., and Johnson, S.M. (2013). *Teachers College Record. Teacher Turnover in High-Poverty Schools: What We Know and Can Do*. Retrieved from <https://pdfs.semanticscholar.org/6210/6fb22387ad72a41d26403ec6851b2f0fd71c.pdf>

Spencer Foundation and Public Agenda. *Teacher Collaboration in Perspective*. Retrieved from <http://www.in-perspective.org/pages/teacher-collaboration>

The Achievement Network (ANet). *Creating a "Culture of Error" Among Teachers and Leaders*. Retrieved from <https://www.achievementnetwork.org/lff-culture-of-error>

The New Teacher Project. (2015). *The Mirage: Confronting the Hard Truth About Our Quest for Teacher Development*. Retrieved from <https://tntp.org/publications/view/the-mirage-confronting-the-truth-about-our-quest-for-teacher-development>

Tschannen-Moran, M., and Gareis, C.R. (2015). *Societies. Principals, Trust, and Cultivating Vibrant Schools*. Retrieved from https://www.researchgate.net/publication/274707237_Principals_Trust_and_Cultivating_Vibrant_Schools

UChicago Consortium for School Research. (2018). *How Do Principals Influence Student Achievement?* Retrieved from <https://consortium.uchicago.edu/sites/default/files/publications/Leadership%20Snapshot-Mar2018-Consortium.pdf>

University of Chicago Urban Education Institute. *5Essentials*. Retrieved from <https://uchicagoimpact.org/our-offerings/5essentials>
Urban Schools Human Capital Academy. (2017). *Building a Strong Team Culture*. Reston, VA: Author.

Urban Schools Human Capital Academy. (2017). *Research & Readings on Retention "Lenses"*. Reston, VA: Author.

Urban Schools Human Capital Academy. (2017). *Tangible Activities for Creating a Stronger Team and Better Culture*. Reston, VA: Author.

Urban Schools Human Capital Academy. *Principal Human Capital Actions: Retaining Effective Teachers*. Reston, VA: Author.

Urban Schools Human Capital Academy. *Reboot: Redefining HR's Role in Supporting Great STEM Teaching*. Retrieved from <http://ushcacademy.org/wp-content/uploads/Reboot.pdf>

Wallace Foundation. (2013). *The School Principal as Leader: Guiding Schools to Better Teaching and Learning*. Retrieved from <https://www.wallacefoundation.org/knowledge-center/pages/the-school-principal-as-leader-guiding-schools-to-better-teaching-and-learning.aspx>

Wenner, J.A., and Campbell, T. (2017). *Review of Educational Research. The Theoretical and Empirical Basis of Teacher Leadership: A Review of the Literature*. Retrieved from <http://journals.sagepub.com/doi/abs/10.3102/0034654316653478>

Wiener, R. (2018). *Education Week. Why School Climate Should Be Every Principal's Top Priority*. Retrieved from https://blogs.edweek.org/edweek/learning_social_emotional/2018/07/in_schools_climate_change_can_be_a_very_good_thing.html

Will, M. (2017). *Education Week. The Teaching Profession in 2017 (in Charts)*. Retrieved from http://blogs.edweek.org/teachers/teaching_now/2017/12/the_teaching_profession_in_2017_in_charts.html

Wood, J., Jacobs, S., and Hirsh, S. (2017). *Learning Forward and Education-Counsel. A New Vision for Professional Learning: A Toolkit to Help States Use ESSA to Advance Learning and Improvement Systems*. Retrieved from <http://educationcounsel.com/?publication=new-vision-professional-learning-tool-kit-help-states-use-essa-advance-learning-improvement-systems>

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