

A Better System for Schools:

*Developing, Supporting and
Retaining Effective Teachers*

Barnett Berry, Alesha Daughtrey
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Executive Summary

Parents, researchers, and policymakers are clear that teachers have more impact on student achievement than any other school-based factor.¹ Yet not all schools have equal access to the most effective teachers. High-needs schools that serve large proportions of economically disadvantaged and minority students are least likely to recruit and retain teachers who are experienced, National Board Certified or most effective in boosting student test scores.² Thus, high-needs schools are more likely to be beset with teaching vacancies in math and special education,³ and much more likely to fill classrooms with out-of-field, inexperienced, and less prepared teachers.⁴ The strong links established between student learning gains and effective teaching practice suggest that the achievement gap might be better described as an effective teaching gap. How do we close that gap and provide effective 21st century teachers to every student?

The Obama administration’s American Recovery and Reinvestment Act of 2009, and almost \$5 billion in Race to the Top funds, offer state and local policymakers as well as K-12 and higher education stakeholders some unique opportunities. Through these programs, states and districts could secure much needed resources to focus on identifying, preparing, and rewarding teachers in ways that “elevate the teaching profession and help recruit and retain great teachers and principals for underserved schools and communities.”⁵

This report and a set of associated papers from the Center for Teaching Quality and Ken Futernick explore what it really takes to accomplish the goals of developing, supporting, and retaining effective teachers. Drawing on a recent Teachers Network survey of 1,210 teachers nationwide, as well as a wide array of related research, we find:

- Teachers whose students make the greatest achievement gains have extensive preparation and experience relevant to their current assignment (subject, grade level, and student population taught).
- Opportunities to work with like-minded, similarly accomplished colleagues – and to build and share collective expertise – are also strongly associated with effective teaching.
- Accomplished teachers who have opportunities to share their expertise – and serve as leaders (as coaches, mentors, teacher educator, etc.) – are more likely to remain in the profession.

- To teach effectively, teachers must have access to the people, people, resources, and policies that support their work in the classroom. This includes: (1) principals who cultivate and embrace teacher leadership; (2) time and tools for teachers to learn from each other, (3) opportunities for teachers to connect and work with community organizations and agencies that support students and their families outside the school walls; (4) evaluation systems that comprehensively measure the impact of teachers on student learning, (5) performance pay systems that primarily reward the spread of teaching expertise and spur collaboration among teachers.

Our nation has the capacity to make sure every child in every high-needs school in America has effective teachers. President Obama has called for our nation to “treat teachers like the professionals they are, while also holding them more accountable.”⁶ Doing so means not only looking carefully at the research evidence but also listening to our most accomplished teachers and acting on their advice. They are ready, as the President has suggested, to “lift up their schools.”⁷ Evidence from both a wide range of surveys and related research suggests strongly that many, many teachers are ready to respond to the President’s call. It is time to hear their voices and embrace their ideas for recruiting, preparing, rewarding, and supporting effective teachers — ones that all of our students and families deserve.

Understanding the Conditions That Allow Teachers to Teach Effectively

Over the last two decades, researchers have documented policy what parents have always known: teachers are the most important in-school factor in determining whether or not students learn at high levels.⁸ Compared to the United States, other nations which produce much higher student achievement gains invest far more in teachers — ensuring that the most academically able individuals are recruited to the field, preparing them extensively before they begin to teach, and creating the conditions that allow them to teach effectively.⁹

However, in the U.S., not all schools have equal access to the most effective teachers. High-needs schools that serve large proportions of economically disadvantaged and minority students are more likely to have difficulty recruiting and retaining teachers, particularly in high-demand subjects like math and special education.¹⁰ As a result, they are much more likely to fill those openings with out-of-field, inexperienced, and less well-prepared teachers.¹¹ While a wide array of out-of-school factors have a large influence on the student achievement, America's dysfunctional system of teacher development undermines efforts to improve its public education system. Historically — as well as today — state school boards and legislators routinely lower hiring standards to expediently address teacher shortages, especially for schools serving our nation's most vulnerable students

More problems prevail. In most communities, teachers are expected to work for below-market wages. Inequitable education finance systems dictate that poorer communities — where salaries are even lower — cannot compete in the teacher labor market. At the same time, lock-step teacher compensation systems ensure uniformity and predictability for teachers and the school boards who pay them while ignoring market realities and isolating teaching expertise. Longstanding tenure rules, designed to protect teachers from administrative abuses, make it difficult to remove ineffective teachers.

But dysfunctional professional development, support and evaluation systems are the real reason that ineffective teaching occurs in public schools. Many teachers are thrust into high needs schools without sufficient training. They are often expected to teach in subjects and age levels for which they are not prepared. They have little time to learn from each other and share best practices. Overworked and poorly trained administrators often have little skill — or even inclination — to cultivate and draw on collaborative teacher leaders who can advance more complex school reforms and improve teaching effectiveness.

Much of the current focus on improving teaching effectiveness rests on using new statistical tools to determine which teachers produce more “value-added” gains on the current crop of standardized tests their students take. However, today's value-added systems for measuring teacher effects can provide useful information, but the data are not always reliable for making high-stakes decisions. As economist Steven Rivkin noted in a recent *New Yorker* article, “test scores are very noisy measures of knowledge,” and it is difficult for researchers develop a model that can define the impact of an individual teacher separate from the community and family as well as from their colleagues.¹² Most notably, new research suggests that teaching experience and pedagogical preparation matters for student achievement when teachers have opportunities to learn from their peers in their schools over time.¹³

In sum, research shows that conditions in which teachers work and students learn seem to matter a great deal for effectiveness in the classroom. While there are certainly ineffective teachers who should not be teaching, there is no evidence that just firing them and hiring more talented individuals will improve student learning – not at all. What matters most for teaching effectiveness are the conditions under which teachers teach.

This study, and the series of accompanying briefs by our team (including Ken Futernick of WestEd), addresses these issues head on. We examine a range of evidence that includes survey results assembled by the New York-based Teachers Network, as well as other research studies that clarify how America’s teachers view their profession. With the support of the Ford Foundation, the Teachers Network undertook a major national survey of 1,210 teacher leaders (and in-depth interviews with 29 of them), to better understand the role that participation in teacher leadership networks plays in supporting and retaining effective teachers in high-needs urban schools. (See Appendix A.) These survey results as well as related studies offer important insights for policymakers interested in advancing a results-oriented teaching profession. We organize our findings around several themes, beginning with the important role specialized preparation plays in developing teacher and teaching effectiveness.

Ready to Teach Effectively: The Role of Teacher Preparation and Professional Development Programs

The education research community has spent years debating the value of teacher education and professional development programs and their impact on teaching effectiveness and student achievement. When studies yield ambiguous findings, some policy pundits often grab a sound bite or headline to make the case that teachers do not need preparation. Instead, the key to teaching effectiveness is recruit academically-able individuals, who have content knowledge and the right dispositions, to teach for a few years.

However, the overwhelming evidence suggests strongly that high-quality pre-service preparation (including an extensive, fully supervised internship or student teaching) increases new teacher retention and improves their effectiveness.¹⁴ And while many professional development programs are highly uneven, the right kind of in-service training does yield greater student achievement gains.¹⁵ In a recent survey by Public Agenda, the vast majority of teachers reported that specialized preparation for adapting or varying their instruction to meet the needs of a diverse classroom was one of the most effective strategies for improving student achievement.

Pre-service Preparation for Effective Teaching

A number of think tanks as well as prominent journalists have promoted the ideas that teachers do not need much training, and that if new recruits are to be licensed, the sole litmus test should be whether they know their content rather than whether they have the skills to teach it.¹⁶ In fact, conventional wisdom today suggests that teaching is more of a craft like journalism, which is learned principally on the job.

But a close look at the research evidence clearly suggests otherwise. Granted, one recent study did find that alternatively trained teachers produce greater achievement gains for their students.¹⁷ However, a closer look at these results reveals that the gains were of modest statistical significance, and only in math; reading scores were stagnant. Moreover, the study did not control for the fact that these alternative certification candidates actually had *more* clinical experience, mentoring and pedagogical coursework than some of their traditionally-prepared peers – factors which are very likely to explain most of the effects observed.¹⁸ Indeed, other studies have shown that when alternatively trained teachers had less pedagogical training than other candidates, their students’ achievement scores dropped over the course of the year.¹⁹

A recent study of examined the effectiveness of teachers who entered the classroom through both traditional and alternative pathways into teaching in New York City. Using a large and sophisticated dataset, the authors show that teacher education programs that produce higher student achievement gains in their first year of teaching had the following characteristics:

1. Extensive and well-supervised student teaching where there is strong “congruence” between the training experience and the first-year teaching assignment;
2. Opportunities “to engage in the actual practices involved in teaching” (e.g., lesson study with colleagues);
3. Opportunities to study and assess local school curriculum; and
4. A capstone experience where action research or data portfolios are used to make summative judgments about the quality of the teacher candidate.²⁰

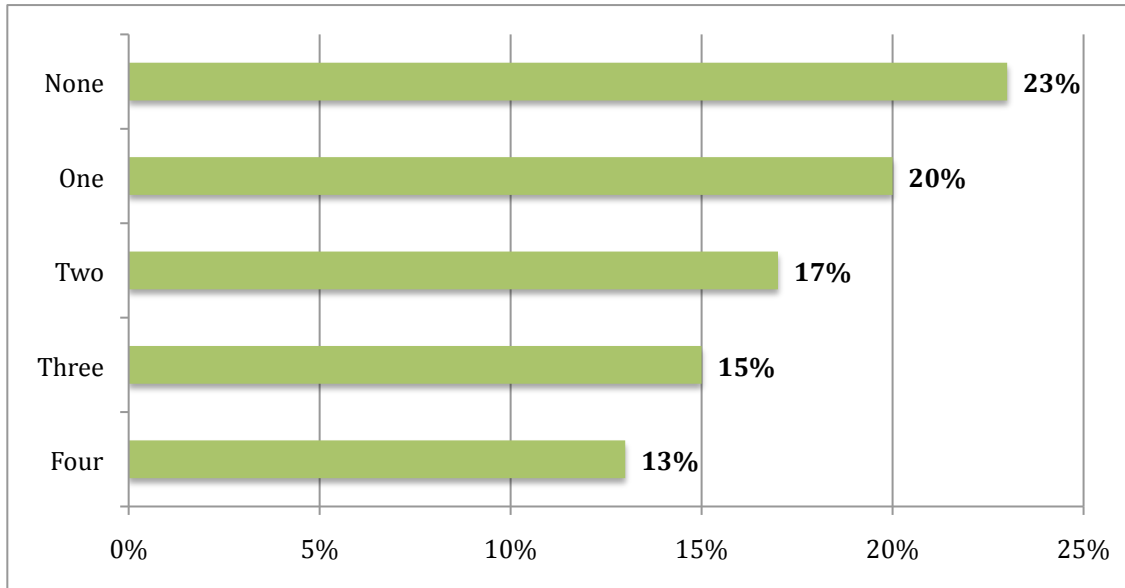
CTQ’s own Ford-funded research has surfaced the importance of other key pre-service preparation components for teaching in high needs schools: cultural competencies necessary to work successfully with students and families; additional training for teaching English language learners or special needs students; integrating classroom instruction and strategies with community and after-school resources; and information about curriculum policies that will govern their day-to-day work as future teachers.

Traditional university-based programs tend to recruit and train teacher candidates based on “universal” best practices and do not always take into account local context or the specific needs and curriculum of the schools in which their graduates will teach. Ironically, teacher education graduates tend to teach in or near to the communities in which they were prepared. Many of the 1,200 colleges and universities that prepare teachers have greatly improved their approaches to recruiting and training new recruits. However, the teacher education enterprise remains very uneven. Historically, the press to certify more teachers cheaply pushed universities to create lock-step training regimen based on a “courses and hours approach” followed by a mere “rubber-stamping” of those who would be deemed qualified.²¹ No doubt the remnants of such a system remains.

Richard Ingersoll and colleagues find that comprehensive pre-service preparation programs not only improve teaching effectiveness, but also reduce attrition among beginning teachers.²² In a

recent study, they examined beginning teachers' preparation programs to assess whether they received coursework in selection of instructional materials, coursework in learning theory and child psychology, opportunities to observe other teachers' lessons, and feedback on their own teaching practice. Greater numbers of these components in preparation programs correlated strongly with reduced attrition among new teachers, as Figure 1 illustrates.

Figure 1: Attrition rate among beginning teachers, by Extensiveness of Teacher Education (number of preparation components)²³



NOTE: Preparation components considered in this study included: coursework in selection of instructional materials; coursework in learning theory/child psychology; observation of others' classes; and feedback on their own teaching.

While most university-based preparation programs offer student teaching, the experiences are often quite limited and do not guarantee in any way whatsoever that all recruits are supervised by expert teachers or are using proven teaching techniques. One Teachers Network member noted:

I feel that my teacher preparation program didn't really prepare me for the real things that I experienced as a new recruit to teaching. Some of the best practices that my pre-service program gave me worked very well in the context of the affluent school where I student taught but not at my high-needs school in which I was first assigned.

The Teachers Network survey did not specifically solicit any information about teachers' preparation for the classroom. However, most interviewees quickly volunteered information about the importance of high-quality professional preparation. For them the key component was working under the supervision of an expert teacher for a full year. But this was not enough. The placement needed to be in a school context similar to the one in which they would end up teaching. One teacher, reflecting on how this system should optimally work, noted:

[I think that effective recruitment of teacher candidates is] going to mean [that districts have to start] partnering with universities and colleges, and particularly trying to recruit teachers who understand and fit into the demographics of the schools in which they'll be teaching.

Several Teachers Network members, interviewed as part of this study, were the most critical of the lack of time their programs gave them to prepare for the classroom. A former Teach for America cohort member – who went to a five-week training program and had a first clinical experience as a summer school teacher – reported:

You need to spend more than the month that you're given in a summer school classroom [to prepare to be an effective teacher]. ...You don't get to see a regular room environment, you don't get to see systems and how they get in place. ...I did have some support [from a mentor] once I began to teach, but you really need to spend a lot more time in the classroom before you begin to teach.

Another teacher entered the classroom through the New York Teaching Fellows program, in which mid-career recruits with no prior education experience simultaneously worked on master's degrees and while completing their licensure requirements. The utter lack of any prior preparation – clinical or theoretical – proved disastrous, as that teacher remembered it:

I was teaching in a very tough school and I couldn't even keep the kids in their seats. ...I mean chairs were flying across the room, and it was really because I was ineffective... for the first two years. I felt really responsible [but didn't know what to do to address the situation].

What these two teachers had in common was that their preparation had included little clinical experience – and what they did have was simply not of sufficient duration to prepare them to teach effectively in a high-needs school.

Another Teachers Network teacher shared a reflection about how lack of preparation time and tools impacted the first year in the classroom:

I think I did a disservice to my kids in my first year. I cared about them. And they knew I genuinely cared about them and their families, and bringing them in and engaging them... and making them value education. But I didn't have the pedagogical skills that I really needed to reach them. ...I did my best, but it wasn't enough.

This teacher's insight is a powerful one: passion for and commitment to educating high-needs students is not enough to be a successful teacher. High-quality preparation is absolutely essential to teacher effectiveness – and anything less is a disservice to students. The Teachers Network interviewees called for longer term clinical preparation as well, such as apprenticeships or residencies that would allow teacher trainees to make a more gradual entry into work as full-fledged professionals. One asserted:

If that first year, instead of being thrown into a classroom by yourself, you were thrown into an apprenticeship where you still were paid and had benefits [like other teachers], you could be in a room with somebody else [who was more accomplished and could guide you].

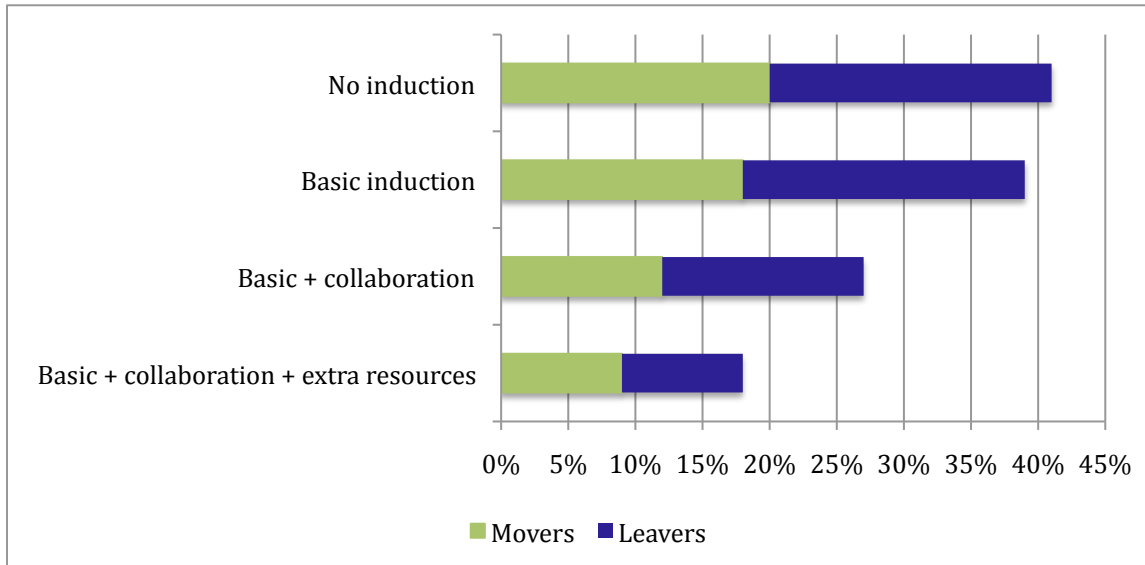
The facts are clear: the National Center for Education Statistics reports that new teachers whose preparation included student teaching had a 15 percent attrition rate over five years, compared with a 29 percent attrition rate for those who did not student teach.²⁴

Professional Development for More Effective Teaching

Research on the relationship between professional development and teacher effectiveness is mixed. Some studies suggest that professional development has few effects, if at all, on student achievement,²⁵ but these studies tend to group together all types of training regimes and workshops, irrespective of their quality. Recently, Darling-Hammond and colleagues found that professional development using “scientifically rigorous methodologies” and of certain depth and duration (30 to 100 hours of time over six months to a year) was far more likely to positively impact student achievement.²⁶ They point to several decades of research revealing that collaborative teacher learning is key to advancing school change and improving student learning.

Other researchers have found that teachers who participate in structured settings to analyze student work and solve problems in their schools are more likely to change their teaching practices and improve student achievement.²⁷ Such peer learning opportunities are likely to be especially critical for beginning teachers, who are still learning their craft. Early career supports, including formal mentoring and induction programs as well as other opportunities to engage collaboratively with accomplished colleagues, have been shown to have positive effects on beginning teachers’ effectiveness (as measured by student test scores) and on reducing the turnover rate among beginning teachers.²⁸ As Figure 2 below illustrates, coupling basic induction programs with collaborative opportunities yields highly significant reduction in the percentage of first year teachers who change schools or leave teaching altogether.

Figure 2: Percent turnover for first year teachers, by induction supports received²⁹



A wealth of other studies have shown how teachers value collaborative professional development experiences – including participation in action research – as the learning opportunities that most strengthen their effective teaching practice.³⁰ Research suggests that interactive professional development experiences are among the most likely to produce effectiveness gains, because they allow teachers to build social supports and relationships with colleagues upon which to base future collaboration and professional growth.³¹ Darling-Hammond and colleagues note:

When whole grade levels, schools or departments are involved, they provide a broader base of understanding and support at the school level. Teachers create a critical mass for improved instruction and serve as support groups for each other's improved practice. Collective work in trusting environments provides a basis for inquiry and reflection into teachers' own practice, allowing teachers to take risks, solve problems and attend to dilemmas in their practice.³²

A groundbreaking 2009 study demonstrated the importance of building such professional social capital, quantifying the student achievement gains reaped when teachers were able to learn from accomplished peers and develop collective expertise.³³ The importance of collaborative professional development and professional learning communities has been a common thread in CTQ's case studies, as well as in the Teachers Network sample. One typical Teachers Network interviewee spoke of meeting with peers to share pedagogical skills and strategies – as well as to provide formative peer evaluations of other teachers' classroom practice:

We have a professional growth team in place, where we are trained [to take part in] the evaluation process. When new teachers come in [to the school], ...we're trained and assigned to assist them through four evaluations. We look over their lesson plans [and help them with] any problems they might be having. ...We [also] try to pair up on the grade level so that there's a common community there, and to bring [new teachers] into the community, sharing ideas and planning collaboratively so that no one is out there on their own. ...We all share, roundtable, what we're going to do.

In fact, the analysis of Teacher Network survey and interview data reveals clearly that collaboration among colleagues paves the way for the spread of effective teaching practices, improved outcomes for the students they teach, and the retention of the most accomplished teachers in high-needs schools. The quality of teaching may have less to do with the academic qualifications of individual teachers and far more to do with the extent to which teachers work with each other and provide leadership for their schools and communities.

Learning to Teach Together: Collaboration as a Tool for Closing the Effective Teaching Gap

Indeed, researchers have shown that the main reason American students do not perform as well as many of their international peers on achievement measures in math and science is that their teachers are not given the kinds of opportunities they need to learn from each other.³⁴ In other high performing nations such as South Korea, Japan, and Singapore, teachers spend only about 35 percent of their time teaching students. The other 65 percent is spent in colleague-centered professional development — preparing and critiquing lessons, observing colleagues, grading papers, tutoring students, and working with parents and colleagues. Most of their planning is done with fellow teachers, with whom they share responsibility in teaching students.³⁵ This is not the case in the United States. But, next we consider what teacher survey and interview data suggest about how collaboration can act as a tool for school improvement and more effective instructional practice.

Collaborating for Improved Instructional Effectiveness

1. Opportunities for peer learning among teachers build collective expertise.

Teacher effectiveness has less to do with individual attributes, and far more to do with the extent to which teachers work with each other and provide collective leadership for their schools and communities. Mentoring has been shown to increase new recruits' pedagogical practices, teaching effectiveness, and retention.³⁶ However, new studies suggest that teachers *at any experience level* stand to gain from collaborative work. Teachers who have consistent opportunities to work with effective colleagues also improve in their teaching effectiveness.³⁷

Accomplished teachers instinctively understand that teaching — particularly in a high-needs school — is necessarily a collaborative enterprise, requiring significant peer support and input for success. Over 64 percent of respondents to the Teachers Network survey said they joined their local collaborative networks primarily because they “wanted a professional community” of other teachers with whom to exchange ideas and best practices for their classrooms. This hunger for collaborative opportunities far outstripped any other reason for joining networks — including

opportunities for fellowships or other funding, suggestions from their principals. Whether they collaborated in face-to-face meetings (63 percent) or virtually (76 percent), most teachers involved in Teachers Network communities were actively engaged in ongoing activities that connected them to other classroom practitioners who could help them “raise their games.”

Figure 3a: Sources of support and help for teachers

To whom do you turn for help about teaching?

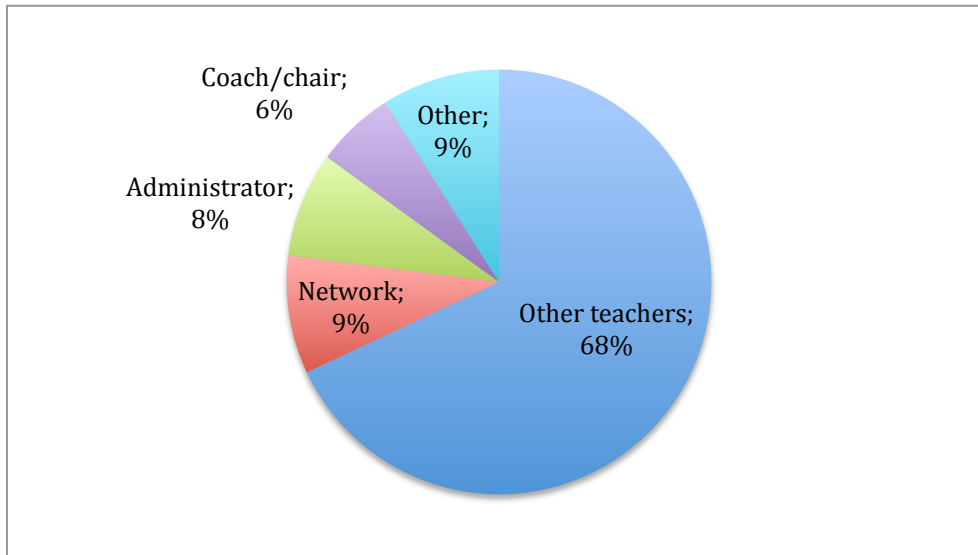
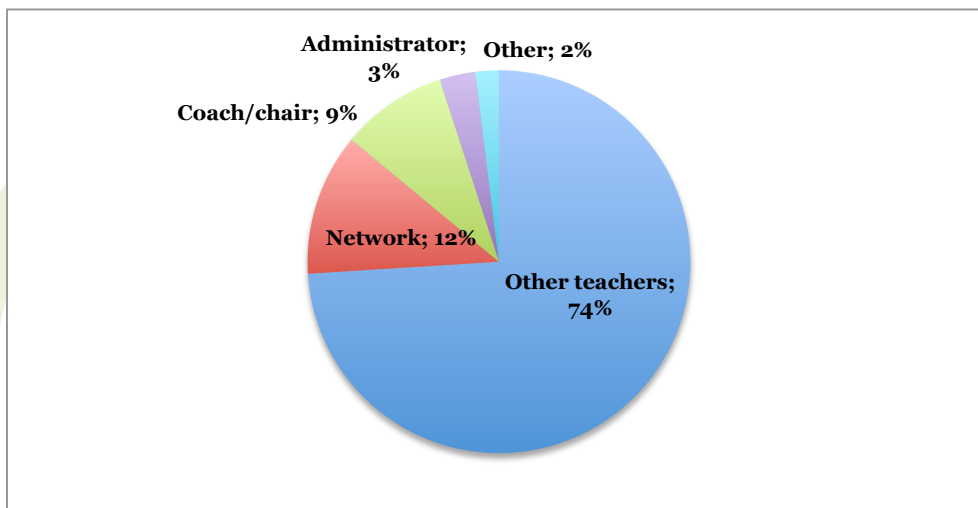


Figure 3b: Sources of support and help for teachers

To whom do you turn for support [as a teacher]?



DATA SOURCE: Authors’ tabulation of Teachers Network survey data

Moreover, the teachers overwhelmingly said that support specifically from peers was important to them for support and for help with their classroom practice. As Figures 3a and 3b illustrate, a

very large majority of respondents cited “other teachers” as their primary supports and sources of information, surpassing even their department chairs, principals or other formal leaders in their schools.

Moreover, other research finds that collaboration is an important component of successful retention efforts. When combined with basic induction supports, collaboration can reduce turnover among first year teachers by nearly a third.³⁸ A national survey of science and math teachers – who are among the teachers most likely to leave the profession – found that 38 percent cited a lack of adequate collaboration time as one reason for their departure from teaching in a public school.³⁹

2. Access to such collective expertise makes teachers more effective in advancing student learning.

Collaboration may build the knowledge base among teachers in a school or professional network, adding value to the education students receive. But precisely how much value does that peer learning have, measured in terms of student outcomes? Studies show that students perform better on tests of mathematics and reading when they attend schools characterized by higher levels of teacher collaboration, creating a tipping point for sustained school turnaround.⁴⁰ More specifically, a recent study using 11 years of matched teacher and student achievement data was able to examine this relationship even more granularly, by isolating and quantifying this added value brought by collective expertise. Drawing on very sophisticated analyses, the researchers found that peer learning among small groups of teachers seemed to be the most powerful predictor of student achievement over time. Fully 20 percent of a teacher’s value added to student learning, as measured by student test score gains, was attributable to shared expertise.⁴¹ *Education Week*, in reporting on this groundbreaking study, concluded, “[T]eachers raise their games when the quality of their colleagues improves.”⁴²

CTQ’s own case study research, funded by the Ford Foundation, has surfaced how teachers collectively refine their teaching strategies in order to ensure that low-performing students reached their achievement growth targets. A master teacher within their grade level tested out new ideas for instruction that were generated by the whole team, to be sure that the innovations were effective before introducing them more broadly:

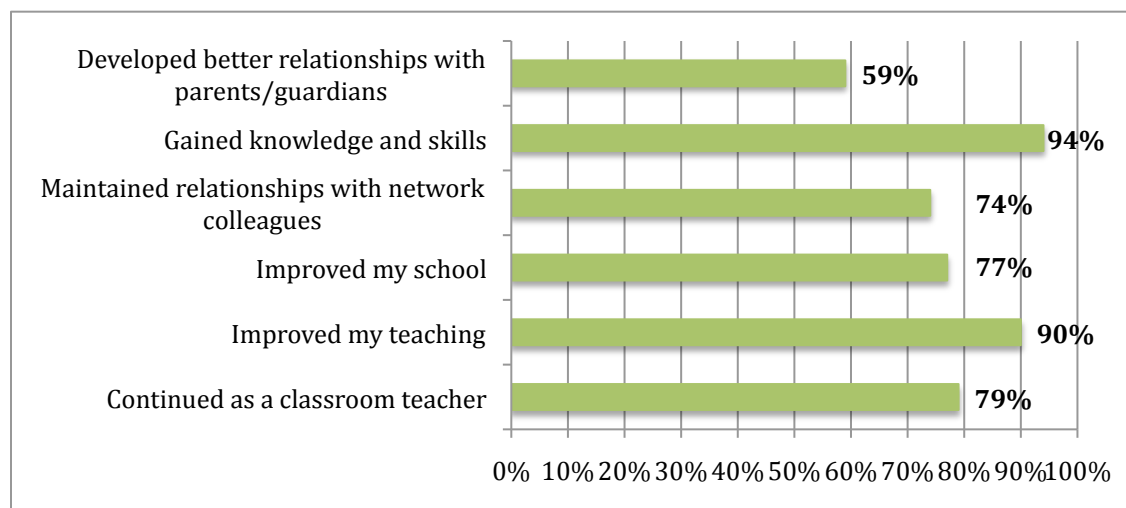
[If my colleagues] want to implement something, ...I’ve said, ‘Well, let me try it first and let me see if it [works well]. And if it’s a keeper I’ll let you all know about it.’ Sometimes that knocks the kinks out of the [new lesson or strategy] if just one class tries it versus everyone [in the grade], and that...really saves a lot of time [with trial and error].

This example offers one clear proposal for how schools might ideally handle teacher assignments. Teachers might be placed with collaborative teams, arranged by grade level or subject, and composed with an eye towards balancing skill sets and experience levels. Diversifying teams as a matter of practice and plan, not as a happenstance, would allow teachers to develop shared expertise, thus maximizing teaching effectiveness and minimizing frustration and burnout.

Respondents to the Teachers Network survey were also clear about the benefits of their participation in collaborative activities through their local networks, summarized in Figure 4 below. Over 90 percent of the teachers reported that their network participation improved their teaching practice, and over three-fourths feel that it has improved their school overall.

Figure 4: Teachers Network Survey Responses

“As a result of network participation, I have...”



DATA SOURCE: Authors’ tabulation of Teachers Network survey data

Of course, not every school nurtures collaborative engagement among teachers. For these teachers, participation in a larger cross-school professional network for teachers, such as those offered by Teachers Network, helped to offset limited opportunities for collaboration in their respective local school communities:

There was not a [professional] learning community [in my school] and a place where [issues with teaching and learning] could be discussed...comfortably. And being a part of that [Teachers Network community] and being encouraged by them, ...knowing that my problems were not uncommon to their problems, and thinking out solutions about how to fix those problems...has been a wonderful experience, a real learning process for me...as a professional.

For other teachers, having a broader professional network with which to share and collaborate had additional benefits, whether they had opportunities for collaboration within their buildings or not:

One of the things I love about [my work with other teachers through the network] is that [the discussions are] at the academic and intellectual level of...a master’s degree program. ...I’ve had to reflect on my classroom, my school, in the context of being a laboratory for [me as] an agent of change. So that’s made me really look at what’s going on from more of a systematic [and] scholarly approach. ...We’re really looking beyond

the [current slate of] standardized tests, like what are other impeding variables that may factor in [to why students do or do not experience the learning growth that they should].

In addition, the majority of respondents (59 percent) also reported that network participation helped them to develop better relationships with their students' parents — an extremely critical piece of the school improvement puzzle. CTQ's recent case studies of three high-needs schools in an urban district suggest that finding ways to engage parents — or in their absence, the resources of the broader community for supporting the school financially or with volunteer assistance — are critical to the success of school improvement plans and student achievement gains. Such expansions of collaboration beyond the classroom walls are also strongly associated with better educational and life outcomes for students in high-needs communities.⁴³

Moreover, as Figure 4 reveals, almost 80 percent of claimed that their network involvement fueled their intention to stay in teaching. One member of a Teachers Network community put it succinctly, saying, "Teachers stay when they feel that they supported and that they have good professional relationships [with their colleagues]." In fact, our regression analysis of Teachers Network survey data reveals that — controlling for a variety of school factors — colleagues' support was the *only* school culture factor significantly associated with teachers' planned long-term retention. Teachers who planned to stay in the classroom for up to 5 years cited opportunities for professional learning or high standards among staff as most important. But collaboration was by far the dominant factor in retaining these teacher leaders for 10 ($p < .05$) or 15 ($p < .01$) years. Appendix C shows results of regression analyses for these and other factors.*

Our analysis of the teacher interviews explicitly uncovered these connections between collaboration, improved effectiveness in the classroom, and retention of those newly more effective teachers in high-needs schools. One teacher claimed:

[I]f I had been in [a high-needs] school and just shut my door..., I would've fallen apart. But the fact that I had this very supportive group of people and we were always addressing the issues [that our schools and students faced], and...helping each other work through things [to improve student learning] — that kept me at that school.

These findings are hardly unique to the Teachers Network sample. The Center for Teaching Quality's surveys and case studies in other urban districts across the country show that opportunities for meaningful collaboration are one important factor in teachers' decisions to remain at their current schools — or remain in teaching at all.⁴⁴

Making Collaboration Work

The Teachers Network survey did not ask teachers to identify the ways in which collaboration at their schools or in their networks were structured. However, evidence suggests that the

* We note that the r-square values for our regression analyses were quite low, suggesting that the largest factors in prospective retention among respondents were variables that were missing from our data or models. As discussed in the Data and Methods section, small subgroups prevent disaggregated analyses or the use of sophisticated — or even complete — controls for these variables in our models. Readers are therefore encouraged to interpret all regression analyses presented here with some caution, and to treat them as preliminary data on what we hope will be a larger body of research on supports for, motivations of, and career decisions among teacher leaders.

structure of collaboration matters to its impacts on teacher effectiveness. However, our on-going studies at CTQ have begun to suggest best practices for collaboration that are most tightly linked to teacher effectiveness. These include:

1. Scheduling adequate time for collaboration.

Whether teachers are trying to collaborate within a grade level group or a subject area department, schedules must be aligned to allow for common planning time. Collaboration rarely “just happens” in schools; teachers are busy keeping up with their students and often get siloed within their own classrooms. Aligning teachers’ schedules to create common planning times sets the tone by showing that school leaders value collaboration. Doing so has been linked to more effective instructional innovation among teachers.⁴⁵

One principal whom we recently interviewed emphasized that the *amount* of time that teachers had together was critical, and recommended at least 90-minute blocks:

[Otherwise, teachers wouldn’t have] ample time [for collaboration.] ...They wouldn’t go in depth in terms of what had worked [with students], what hadn’t, what data do we have...to know if this works? The conversations are too pro forma [in shorter meetings].

Teachers in that principal’s school strongly agreed. One told us, “Having the time to look back at the [student] data or prepare [your lessons with colleagues in my grade level]...is a big factor [in effective teaching].”

2. Aligning collaboration structures for both horizontal and vertical collaboration.

Traditionally, teachers collaborate horizontally, with teachers in their same grade level or subject area department. Vertical collaboration across grade levels is much more rare, but may be at least as important as horizontal collaborations for allowing teachers to “hand off” knowledge about students’ needs to the next teacher – which may be especially important for high-needs students. CTQ’s case studies have revealed that teachers and principals find vertical collaboration especially useful for aligning instructional strategies across grade levels for key tested subjects, in order to make targeted achievement growth for reading and math. The structure of collaboration, then, should follow school goals for teaching and learning.

3. Structuring collaboration meetings formally.

Teachers who participate in structured dialogues to analyze student work or solve problems in their schools are more likely to implement positive changes in their teaching practice and improve their students’ achievement.⁴⁶ One teacher unsurprisingly noted: “It helps to have specific agenda items in mind, at least, when we sit down. ...That way, we stay focused...not going off on a tangent.”

4. Creating an atmosphere of mutual trust.

Collaboration – sharing knowledge and ideas – implies risk. Both survey and interview data gathered by CTQ in various urban districts drives home the point that collaboration is difficult to execute without a sense of trust among teachers. Where rifts are deep – between new and

more established teachers, opposing teaching philosophies, or clashing individual personalities – teachers report that collaboration becomes less effective: “If you...don’t mesh well, then it becomes very difficult to feel successful in a model where you must rely on someone else and their judgment.”

Teachers who work in trusting environments have a basis for inquiry and reflection into their own practice, allowing them to take risks, challenge and critique each other, and collectively solve tough problems.⁴⁷ And teachers who feel valued by their principals, and believe they are afforded professional respect, are also more likely to stay in teaching and produce whole school improvement (including student achievement gains).⁴⁸

5. Accountability systems that support, not undermine, collaboration among teachers.

A recent poll revealed that 73 percent of the nation’s teachers believed that standardized test-based merit pay systems created “unhealthy competition and jealousy among teachers” and not “cooperation” among them. Only 25 percent believe that such pay for increases in test scores would “motivate” teachers to “work harder and find ways to be more effective.”⁴⁹

The same poll posed a hypothetical question to the national sample: “Would you prefer to move to a school “where there (was) a lot of collaboration among teachers” or to one where there was “less collaboration” but teachers were “free” to develop their own effective lessons. Over 67 percent of those polled favored a school that expected collaboration and not just individual excellence. Only 8 percent of the nation’s teachers believed that tying teacher pay to test score increases would improve student achievement — and the there virtually no difference those who were young (Generation Y and X) or more seasoned (Baby Boomers).⁵⁰

Moreover, other researchers have found that team-based — as opposed to individual — performance-pay rewards “can create internal accountability mechanisms whereby teachers have incentives to identify and help struggling colleagues.”⁵¹ Teachers report that the most difficult thing about teaching is the “unreasonable pressure” to raise standardized test scores,⁵² while at the same time over 90 percent believe that other teachers are responsible for their individual success in their own classrooms.⁵³

Leading the Way to Effective Teaching

A rich literature — both within education circles and in other kinds of labor markets — links teachers’ sense of efficacy and collective responsibility to their teaching effectiveness and improved student achievement.⁵⁴ Prior research has found that a teacher’s self-efficacy as an instructional leader is strongly and positively associated with soliciting parent involvement, communicating positive expectations for student learning, improving instructional practice, and being willing (and able) to innovate successfully in the classroom.⁵⁵ Increased opportunities to lead build on one another and translate into increased success for instructional leaders. Teachers who report more control over the policies in their schools and greater degrees of autonomy in their jobs are more likely to remain in teaching and to feel invested in their careers and schools.⁵⁶

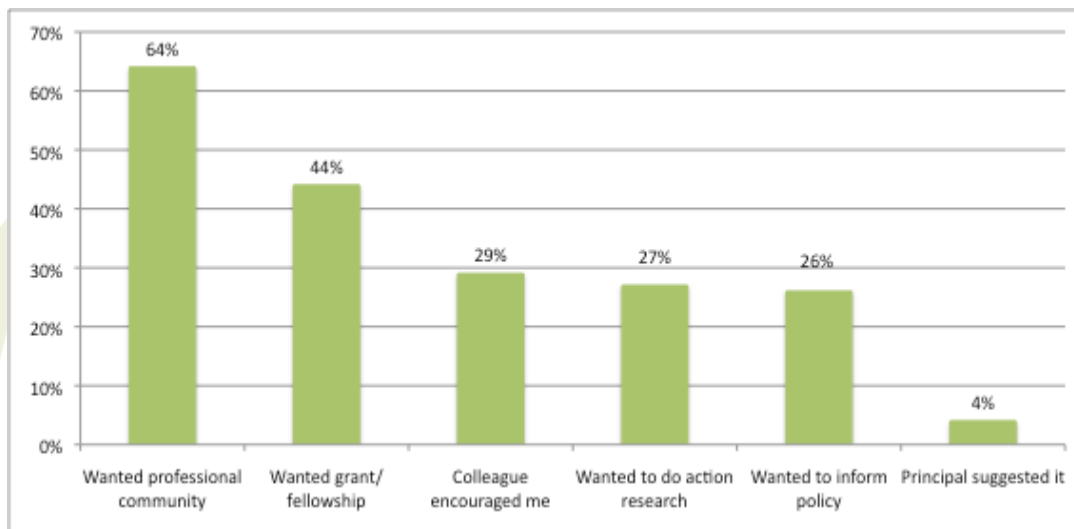
However, teachers have few opportunities to lead and influence both policy and programs. In fact, teaching is a traditionally “flat” profession, with few opportunities for teachers to advance professionally without leaving the classroom.⁵⁷ If teachers are to be “promoted” within education, such as moving into administration, then they no longer work with students directly. And once they no longer work with students they often lose not only classroom perspective but also credibility with their colleagues as instructional leaders. In this section, we consider what effective teacher leadership looks like, and how it contributes to both better outcomes for students and improved retention of the most effective and experienced teachers.

1. Teachers’ leadership and collective expertise are tightly linked to improved student achievement.

Again, recent research shows that schools staffed by credentialed and experienced teachers who work together over an extended time generate the largest student achievement gains. Students of less-experienced teachers who had access to the most accomplished colleagues made the very greatest achievement growth gains.⁵⁸ Obviously, these less-experienced teachers had the greatest margin for improvement. But this finding nonetheless implies that the “master” teachers with whom they worked are spreading their expertise among colleagues.

The question is whether teachers have *time* to lead or learn from their peers, either informally or through structured professional development experiences. CTQ’s surveys and case studies – and much of the other research in this area – find that they do not, limiting the cultivation of teacher leaders who can spread their expertise to their colleagues.⁵⁹

Figure 5: Teachers’ Reported Reasons for Joining Professional Networks



DATA SOURCE: Authors’ tabulations of Teachers Network survey data

Teachers Network survey respondents joined their professional networks for a broad variety of reasons, including the ability to secure funding for projects in their classrooms or schools and involvement in research or policymaking. (See Figure 5 above.) Related interview data suggest

that involvement in such collaborative leadership work was important to teachers' sense of professional efficacy, and it made them more effective classroom teachers – whether by allowing them to obtain extra resources, learn and practice new skills, or exchange ideas with other practitioners.

Interestingly, over a quarter of respondents to the Teachers Network survey indicated that they initially joined a teacher leadership network at a colleague's suggestion. This finding suggests that existing, if informal, professional communities may have given rise to more formal and structured involvements as teacher leaders. While the preliminary survey data cannot tell us which comes first – professional community and collaboration or leadership that drives more effective teaching – the relationship is nonetheless clear and compelling. Are there particular (if hard to measure) attributes or opportunities that make teachers more likely to collaborate and to lead? What skills do teachers learn that make it more likely that they will assume leadership roles within their communities of practice, or in the larger community of educators? We hope that future research can examine these questions more granularly.

2. Teachers search for innovative strategies as instructional and school leaders but are often stifled by prescriptive policies that drive them from the profession.

The Teachers Network survey did not directly solicit information from teachers about any barriers to leadership they encountered. Indeed – contrary to findings elsewhere in the research on teacher leadership – most participants in this study appeared to experience relatively high degrees of freedom to lead, both within their classrooms and in a broader context. Of course, because the study focused on well-established teacher leaders rather than all classroom teachers, this finding is not surprising.

However, several Teachers Network interviewees appreciated increased emphasis on professional accountability as a way of strengthening the profession and improving outcomes for students. They noted that the ways in which it spurred micromanagement of instruction and curriculum distorted the educational process and made it difficult to teach innovatively and effectively:

Because of the focus on raising scores at my school... our principal's afraid [we won't reach achievement targets], you know. [The principal]... feels that overall things should be controlled [more tightly]. And I think that makes it very challenging [to function professionally and effectively].

Other data, assembled from a nationwide survey conducted by Public Agenda late last year, suggests that high stakes accountability can limit teachers' creativity – and is the most difficult thing about being a teacher. (See Table 1 below.)

Table 1: Factors teachers identify as “the most difficult thing about being a teacher”

	Percentage Reporting as “Most Difficult”
Unreasonable pressure to raise student achievement	32%
Lack of effort from students	25%
Lack of support from parents	23%
Lack of support from administrators	11%
Low pay and lack of opportunity for advancement	8%

DATA SOURCE: Public Agenda

Other research has shown that teaching to the test has narrowed the curriculum,⁶⁰ and has frustrated more accomplished teachers who have the knowledge and skills to adapt instruction to the diverse needs of their students.⁶¹ In fact, Teachers Network members frequently cited increased reliance on district-adopted scripted curricula or mandated programs as a very basic challenge to their efficacy as instructional leaders:

[There are a lot of] initiatives and mandates going on [in my school and teachers] are really losing a sense of their own classrooms. [Administrators] are telling you, ‘You have to do this... this is the new strategy or program we’re using for writing... or math.’ And then [administrators] come in to be sure you are implementing those programs. ...But I want the freedom to work with my children [and do what’s best to meet their needs].

Teachers whose principals, coaches or facilitators did not trust them to go off-script, though, tended to report feeling professionally undermined or burnt out, spoke less positively about formal leadership in their schools, and were less enthusiastic about remaining in their current positions.

A member of Teachers Network described the ways in which accomplished practitioners are uniquely well equipped to design not just appropriate instructional strategies but entire curricula as well:

I’m in the profession. I have the expertise. I’ve studied. I know my students’... needs best. I’m able to fashion instruction according to those needs. So I look to myself more [than to others outside the classroom] as the professional and the expert in the field of curriculum for my students. But policymakers are handing down curriculum to us as teachers as if we do not have the knowledge and skills.

However, what we did learn from the survey is that many teachers reported receiving a great deal of satisfaction and professional motivation from working as leaders and having opportunities to be creative and teach “off-script.” In a recent CTQ study of working conditions

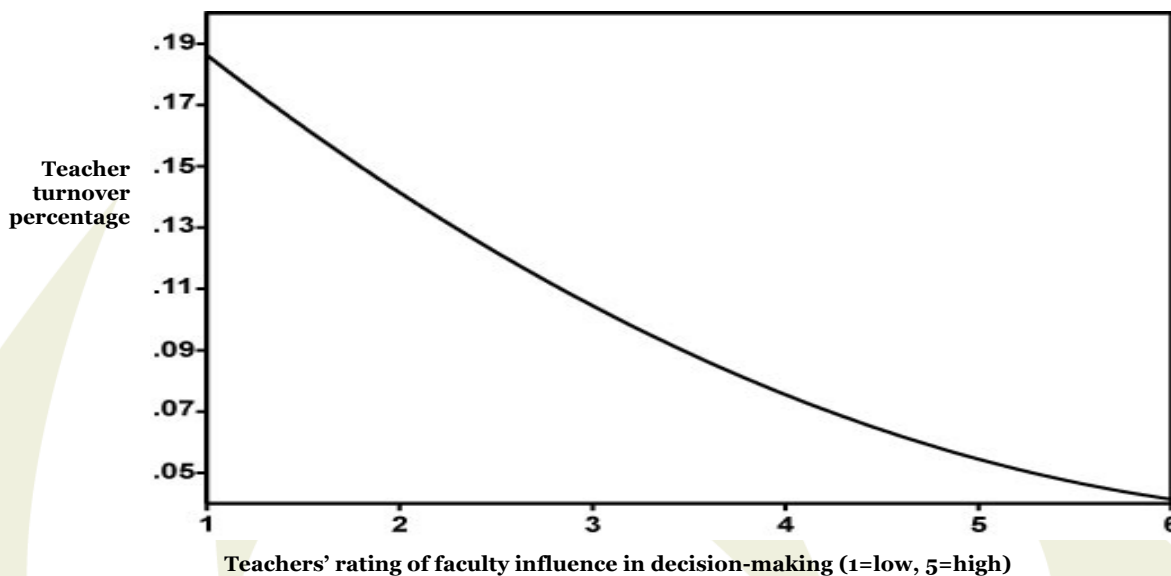
and student achievement, one teacher defined the importance of teacher leadership to student learning:

[Teacher leadership] to me means taking control of student learning – using the best practices and research-based strategies out there. And if it doesn’t work, then what strategy do you try next? It’s never an option to say, ‘Oh, it didn’t work, let’s move on.’

Research shows that when teachers are empowered to function as autonomous professionals and leaders, this builds a sense of professional confidence and pride that feeds effective teaching practice.⁶² In fact, both individual and collective teacher leadership self-efficacy have been linked with successful school improvement and reform efforts, by creating a critical mass of empowered experts within the building.⁶³ These findings are echoed in CTQ’s survey results from one large urban district last year, where a plurality of all educators – teachers and administrators alike – agreed that teacher empowerment was the most important school-level factor to student learning.⁶⁴ Our case studies have revealed that given the diversity of students entering classrooms, teachers need more tools and opportunities to adapt curriculum and instructional strategies than ever before.

In fact, as shown below (Figure 6), opportunities for teacher leadership are also critically important to recruiting and retaining the most effective and accomplished teachers. Richard Ingersoll has found a strong relationship between teachers’ reports of having influence in school wide decision-making processes and their retention in the profession.

Figure 6: Effects of faculty decision-making influence on teacher turnover⁶⁵



Subsequent research focused on reasons for attrition among teachers of math and science – two of the highest-demand subject areas, in which high-needs schools particularly report teacher shortages. This study found that fully one-half of these teachers identified “lack of faculty influence” in decision-making as the reason that they left their former schools or left the profession altogether.⁶⁶

Moreover, teachers newer to the profession are more likely to seek influence in school decision-making and collaborative work with colleagues.⁶⁷ Recent research into what will motivate and retain Generation X and Y teachers suggests that opportunities, roles and allocated time for teacher leadership are critically important if public schools are to ensure a strong supply of effective teachers for the future.⁶⁸

3. Teachers who are empowered to lead within their schools are more likely to remain in the profession.

Teachers Network survey data also suggest that when teachers perceive that their professional leadership is implicitly questioned or limited, they are less likely to remain in the profession. Schools that offer leadership opportunities for teachers appear likely to improve not just instructional quality but retention of their most effective teachers – a matter of particular importance for high-needs schools that tend to struggle with recruitment and retention.

Table 2: Networked Teachers Take on Leadership Beyond the Classroom

Responsibilities Held in Addition to Teaching	Percentage Reporting This Role
Coach or specialist	25%
Instructional leader or department head	38%
Administrative responsibilities	19%
Union responsibilities	13%
Other leadership responsibilities	45%
TOTAL holding additional roles	59%

DATA SOURCE: Authors’ tabulations of Teachers Network survey data. All percentages are rounded to the nearest whole number to simplify reporting. Respondents were permitted to select as many answers as applied to their situation. As a result of both response patterns and rounding, percentages will total more than 100 percent.

Conventional wisdom suggests that some teachers exit the classroom due to a sense of feeling overwhelmed or overworked. But we find that the addition of leadership roles appears to be *less* of a burden on teachers’ busy schedules than the addition of routine responsibilities like paperwork and the deadening impact of being micromanaged. As Table 2 above illustrates, nearly two-thirds of teachers responding to the Teachers Network survey reported multiple roles in their schools beyond regular classroom teaching responsibilities, such as school-level administration duties, union leadership roles or work as a department or grade level chair. Holding such teacher leadership roles was associated with significant increases in planned short-run retention over the coming three years ($p < .001$). Estimates of the impact of this and other factors in teachers’ projected career plans, obtained through regression analysis, are available in Appendix B of this report.

Our initial analyses show no differences in career intentions based upon the type of leadership role held. This finding suggests that teacher leadership matters more than the *shape* of that leadership. Indeed, we expect that the preferred modes of leadership likely vary widely among individual teachers, depending upon their skill sets and dispositions.

4. Teacher leadership beyond the classroom walls facilitates the spread of effective teaching practices and breaks down barriers to effective teaching policies.

Although teachers tend – in both the Teachers Network interviews and in CTQ’s own research – to start by defining their leadership as primarily instructional, many also see a role for teacher leadership beyond the classroom. CTQ case studies have surfaced evidence that teachers feel more in control of their work and more effective in guiding student learning when they are able to bridge gaps between what students learn in school and their out-of-school experiences in after-school or summer programs.

Parental involvement has been associated with improved academic and non-academic outcomes for students, but engaging families and other community partners is a frequent challenge for high-needs schools with large populations of disadvantaged or mobile students. Teacher leaders might help to fill that gap by serving as community-school organizers by conducting more aggressive outreach to families, and resolving barriers to their involvement by finding ways to offer translation, transportation or other services. One Teachers Network teacher created just such a program:

I did action research on how to better bridge the lines of communication between monolingual teachers and non-English speaking parents – and then created a program in my school... based on ideas from other teachers [about the professional development they need in this area]. It has made a great deal of difference – and one reason was that I was able to work with and draw on the ideas of other teachers.

Importantly, that teacher’s leadership not only directly benefitted students and families at the school but also provided vital support to colleagues’ work to involve parents. The program could also have served as a best practice model for other schools in that district, spreading the expertise and leadership beyond the walls of a single building. Other teachers interviewed reported similar “viral” effects of teacher leadership in sharing best practices and expertise with not only other educators but also with the public and policymakers as well:

[T]eachers can make a difference. ...I can write about [what I do in the classroom]... share it with other [teachers], and then I can share with the public. ...I think that... policymakers and the public need to know that whatever they decide [about teaching policies] affects the kids that I teach, it affects me and then therefore it affects [public education], so they need to hear from teachers any way they can.

However, many Teachers Network members expressed clear opinions that teachers’ voices were all too often missing from policy debates on teaching and learning, and that those decisions should be more informed by classroom realities in order to be more effective – particularly relating to issues in high-needs schools. One teacher leader, recently named to a state education commission, noted after attending the first meeting:

Everybody else at the meeting seemed to be part of the status quo, and it was kind of interesting that they didn’t have other representatives of people who are in education. I was the only teacher at the table with these education policymakers. And then at that

point I thought... *I know why I'm here. I have to be here because people need to hear from teachers who are actually teaching in the inner city, with kids who don't speak English as their primary language and are experiencing school far differently than most policymakers imagine.*

Several teachers also noted that their participation in broader professional networks of teachers was important to their continued involvement as teacher leaders. They saw these networks (both face-to-face and virtual) as essential sounding boards for their work — as ways to test out their ideas and the presentation of evidence before they meet with policymakers:

You need the network. You need the relationships, and through this group you begin to establish those relationships. So I have a place to share my voice that's not with just other teachers. And [my ideas are] not just going to stay in my classroom. I want them to actually go somewhere... so I need to network to learn the skills and to work with the people who have the power [to make a difference for students and their families].

Implications for Policy and Practice

Examination of Teachers Network data suggests that preparation and professional development are closely interwoven with collaboration and leadership opportunities — and the retention of effective teachers. However, we also know that “effective teachers” are made and not born. Research conducted by CTQ and others shows clearly that passion for urban education, knowledge of content areas, and concern for child wellbeing are not enough in themselves to generate effective instruction for students high-needs schools. We also know that effective teaching is highly context-dependent. Teachers who are effective in one context may not be so in another, such as the teacher trainee with a successful student teaching experience in a suburban school who struggles during her first year in a Title I urban school.

Ultimately, the largest challenge for serious education reformers is to stop working around the edges of change. The research is clear that effective teachers are embedded in effective systems that prepare teachers, support them, and facilitate their work as professional collaborators and leaders. More research serves to refine and nuance that picture — but at the end of the day, what we need is the courage and political will to create not just more programs, but whole systems of support that prepare teachers and allow them to be effective in high-needs schools.

No single silver-bullet plan can turn around every school; as we discuss here, transformation and effective teaching are highly context dependent. Yet we can identify three interlocking conditions that should distinguish these transformed systems of support for effective teaching:

1. Serious preparation for the subjects and students to which they are assigned (both pre-service and in-service);
2. Time and tools for teachers to learn from each other and work with other student support providers outside the school walls; and

3. Accountability measures that not only identifies which teachers are successful and which are not, but also *why* they are, and what needs to be done to incentivize and reward continued improvements in teaching and learning.

Recruitment

Teaching in high-needs schools is, very frankly, a challenge to which not every person will be equal. Passion, intelligence and content knowledge are not enough to *be* an effective teacher without sufficient preparation. Yet these characteristics may be helpful to new recruits, arming them with some resilience and drive against the rigors of preparing for their future careers. In particular, many (if not most) traditional university-based preparation programs are not as selective as they might be, either with regard to the quality of the teacher candidates they admit or to the types of teaching positions for which they prepare these candidates. Shortages of well-prepared and appropriately credentialed teachers in critical areas (e.g., STEM subjects, special education) – or who are willing and able to take on high-needs placements – are an all-too-frequent result. All teacher preparation programs, of whatever pathway, should assure that recruits are well-matched, well-disposed towards, and well-prepared for the reality of schools in which they are eventually likely to teach.

Preparation

Teacher candidates come to various training programs with very different skill sets. Traditional university candidates will tend to need a blend of content instruction and related pedagogy; alternate route candidates who already hold one or more degrees in their specialty will focus on learning how to present what they know in effective, culturally competent and ability- or developmentally-differentiated ways. These differences argue for adaptive, not one-size-fits-all, training programs that increase rigor without increasing hoops that candidates must jump. Regardless of the pathway, however, preparation for effective teaching needs to be extensive and based in clinical experience that allows teacher candidates to put learned theories into practice (and use practice to make theory meaningful) – and no teacher candidate should be allowed to teach independently until they are shown, through multiple evaluation methods, to meet high standards for effective teaching. Preparation programs and pathways may be made more streamlined – but should never be made *easier*. This is especially the case given the diversity and mobility of today's students as well as the academic demands created by the Web 2.0-plus world in which they must work.

Assignment

Again, teachers who are deemed effective in one context may not necessarily be effective in another. Ken Futernick describes this eloquently in a paper related to our CTQ/Teachers Network series, noting that an English teacher who is forced into teaching algebra cannot sensibly be held accountable for students' failure to make growth. Policymakers and administrators must be held accountable themselves for ensuring that teachers do not receive out-of-field placements, including not only considerations of subject area but grade level and student age as well.

Moreover, administrators must realize that effective teachers do not operate in a vacuum. The key to placing teachers in positions where they can be most effective is to assign them to schools and teams with colleagues whose collective strengths offset any individual weaknesses. In its simplest form, implementation could involve minimizing the number of beginning teachers in any one school, grade level or department. Ideally, however, administrators would also balance more particular skills. For instance, a third grade teacher team might balance those with greater facility in literacy against those more comfortable with math, or teachers who had diverse strengths in working with special education students or English language learners. In this way, effective teaching can become a viral practice, helping struggling teachers to become effective and effective teachers to grow even stronger.

Collaboration and Connections

Placement is a first consideration for facilitating effective teaching collaborations. However, collaboration does not “just happen.” Other conditions must be in place as well for it to be possible and positive. Teachers need adequate time during the school day – when all colleagues are present in the building – to meet with their peers. Schedules must be aligned in ways that allow teachers to meet in horizontal as well as vertical teams, crossing boundaries of subject area and grade level. Sometimes, teachers may need initial guidance how to structure their collaboration so that the time they have is maximized. Wherever possible, teachers should have access to technological tools that allow them to continue collaborations beyond their individual school buildings, and perhaps even across districts and states, through use virtual teacher networks. Finally but importantly, principals and other administrators must make it clear (through words and the practical actions we suggest here) that they support collaboration as a tool for teaching effectiveness and teacher leadership – both of which will contribute to the retention of the best teachers.

Also, in high needs schools, connections with key community programs and people, serving students in afterschool and summer programs, may be the key to effective teaching. Students also do not learn in a vacuum and the alignment between what is taught inside and out of school may be the key to building the trusting relationships needed for learning and long-term student achievement.

Opportunities to Lead

Principals and other administrators have an important role to play in “making space” for teacher leadership in general. Our research reveals that teachers, especially the most effective ones, identify responsive, distributive school leadership as critical to their retention decisions. Beyond that, however, teachers are a largely untapped resource for new ideas about how to help serve students more effectively and efficiently. The growing complexity of schools and exploding knowledge bases – with higher academic demands for students and more skills and topics that teachers must know how to teach – makes it impossible for principals to lead solo. In the highest performing nations, like Finland, teachers lead and leaders teach in order to create and implement locally adaptive curriculum and participate in an accountability system that is driven by educators themselves.

Overhauling teacher evaluation and compensation, such as proposed by many of today's reformers, will require teachers to lead.⁶⁹ In addition, career opportunities for teachers — especially those of Generation X and Y — are critical for them to remain in the classroom.⁷⁰ Some would allow teachers to pursue “traditional” leadership tracks towards careers in administration, but many more might opt for leadership roles — as full or part time mentors, specialists, teaching policy advisors to school boards — that keep them close to the classroom and the students that called them to the profession in the first place. In fact, those who know the most about conditions in the classroom — teachers — should be leaders in developing policies and practices that support effective teaching and learning.

Conclusions

This report, drawing on a recent Teachers Network survey of 1,210 teachers nationwide, as well as a wide array of related research, challenges much of the conventional wisdom about identifying effective teachers and how to retain them. These collected data suggest that:

- Teachers whose students make the greatest achievement gains have extensive preparation and experience relevant to their current assignment (subject, grade level, and student population taught).
- Opportunities to work with like-minded, similarly accomplished colleagues — and to build and share collective expertise — is also strongly associated with effective teaching.
- Accomplished teachers who have opportunities to share their expertise — and serve as leaders (as coaches, mentors, teacher educator, etc.) — are more likely to remain in the profession.

In addition, teachers must have access to the people, resources, and policies that support their work in the classroom in order to teach effectively. These supports include:

1. Principals who cultivate and embrace teacher leadership;
2. Time and tools for teachers to learn from each other;
3. Opportunities for teachers to connect and work with community organizations and agencies that support students and their families outside the school walls;
4. Evaluation systems that comprehensively measure the impact of teachers on student learning; and
5. Performance pay systems that primarily reward the spread of teaching expertise and spur collaboration among teachers.

Our nation has the capacity to make sure every child in every high-needs school in America has effective teachers. President Obama has called for our nation to “treat teachers like the professionals they are while also holding them more accountable.”⁷¹ Doing so means not only

looking carefully at the research evidence but also listening to our most accomplished teachers and acting on their advice. They are ready, as the President has suggested, to “lift up their schools.”⁷² Evidence from both a wide range of surveys and related research suggests strongly that many, many teachers are ready to respond to the President’s call. It is time to hear their voices and embrace their ideas for recruiting, preparing, rewarding, and supporting effective teachers — ones that all of our students and families deserve.

About Teachers Network and the Center for Teaching Quality

Teachers Network, a national nonprofit organization, leverages the creativity and expertise of a national and international community of outstanding educators to transform public schools into creative learning communities. Over the past three decades, Teachers Network has brought together 1.5 million classroom teachers in over 20 network affiliate communities for professional development that hones both classroom practice and instructional leadership.

The Center for Teaching Quality (CTQ) seeks to improve student learning and advance the teaching profession by cultivating teacher leadership, conducting timely research, and crafting smart policy. Core to CTQ is its own [Teacher Leaders Network](#), a virtual community of some of the nation's most expert teachers whose ideas and actions are assembled and spread in order to dramatically improve academic achievement for all students.

Appendix A: Survey Data and Methods

The Teachers Network Survey and Interview Data

This study employs a mixed methods research design. With the support of the Ford Foundation, the Teachers Network undertook a major national survey of 1,210 teacher leaders, to better understand the role that participation in teacher leadership networks plays in supporting and retaining effective teachers in high-needs urban schools. Follow-up interviews with 29 network participants provided a more nuanced view of ways in which opportunities for collaboration and leadership (within and beyond the classroom) can increase teacher efficacy and effectiveness, and improve the retention of the classroom experts students deserve.

The survey sample was drawn from a diverse and accomplished group of preK-12 teacher leaders in every subject area: 93 percent were fully state-certified in their subject area and grade level at the time of the survey, and 78 percent held at least a master's degree. A majority reported that they worked in urban, high-needs schools, where more than 75 percent of the student body was comprised of low-income or minority students. Appendix B shows the overall composition of survey respondents.

Interviewees were selected from among the network participants in order to achieve a geographically representative sample of the communities in which Teacher Network communities operate. Other personal characteristics or factors (including participants' race, gender, and professional background) were not taken into account when selecting interview participants. Interviews were conducted in person and recorded; recordings were later transcribed. Both audio files and transcripts were used in the qualitative data analysis.

Limitations of the Data

The Teachers Network data have some significant limitations. The response rate for the survey was approximately 48 percent; while we can obtain reasonably valid results from such a response rate, this is somewhat below the response threshold of 60 to 70 percent that we would typically prefer from such a survey. Respondents were also permitted to skip questions they did not wish to answer on the survey. While this strategy may have boosted the response rate of the survey somewhat, it resulted in less complete responses that reduced the power of our analyses substantially. Moreover, the survey instrument itself contained problematic elements. For instance, double-barreled and repeated questions confounded our efforts to obtain accurate and clear results in our analysis. While the survey participants as a whole were a quite diverse group, subgroups of teachers surveyed were too small to permit meaningful disaggregated analysis. Finally, we lacked some potentially important personal data on respondents, such as their total household income or marital and family status. Any of these factors may have had some bearing on their responses to items about future career plans, or their perceptions of workload or other career opportunities available to them; however, we were not able to control or account for these here.

Qualitative data in this study also have some limitations that readers are asked to note. The interviews were conducted using a strict interview protocol, which – though it has the benefit of collecting comparable information from every interviewee – often directly cut off potentially

rich lines of commentary from participants engaging in reflection about their experience as teacher leaders. In several instances, we also noted evidence in the transcripts suggesting that at least some interviewers deviated from scripts to supply missing words for interviewees or frame questions in leading ways. These practices tend to undermine the comparability of interview data, and may also affect their validity.

Finally, ambiguous or vague wording of certain survey or interview questions may have introduced additional variability in participants' responses. Terms such as "job prestige," "teacher leader," "advocate" or "leadership" were not explicitly defined, and interviewees were not asked what their own working definitions of these concepts might be. Thus, we lack clarity about how best to define these concepts, or interpret or compare some responses.

Despite these challenges, we find that results obtained from these data are in line with findings from similar teacher surveys in urban districts nationwide. As a consequence, we believe that findings here are generalizable to teachers in urban districts generally, and thus that the findings from those other pieces of research may safely be used in helping to contextualize and explain our results here. In this report and in a series of associated policy briefs, we have enriched findings from the Teachers Network study with results from CTQ's ongoing research on teacher working conditions and teacher effectiveness. We also provide context from the broader research literature to bear on these pooled data.

Methods Used in the Study

The study follows a mixed methods design. Benefits of such designs are that survey data permit ready quantification of general trends to examine and the extent to which any interview reports can be generalized to the larger sample, and complementary interview data allow for a more nuanced understanding of the stories and situations that underlie the numbers. Also, given the limitations of the survey data that we have noted here, however, we find the interview data offer a much more complete picture – and in many cases, allow us to compensate for those limits on our quantitative analyses. The Teachers Network datasets were the only ones with which we engaged directly. However, readers will note that we reference other similar or related studies and data throughout this report, as another complementary lens through which to view and better understand the conclusions that can be drawn from the study data.

Quantitative

Weighting and rounding. Because incomplete responses and small subgroups made valid disaggregated analyses of survey data impossible, we conducted all quantitative analyses on the pooled group of 1,210 respondents. Information about the sample's composition is available in the prior discussion of data sources. We do not have information on the composition of the larger group of teachers who were asked to respond to the survey and interview requests. Therefore, we could not weight the data to control for any over- or underrepresentation of any particular subgroup of teachers, with respect to personal characteristics (e.g., race, gender), professional characteristics (e.g., certification status, degrees held), school type (e.g., public, charter), or other factors.

All percentages given are rounded to the nearest whole number after all other calculations have been made. Thus, readers are advised that summed totals presented may not add properly to the expected values. Further, many survey items permitted multiple responses. Our presentation of select data points from these items will also not total the expected 100 percent.

Supports for effective teaching, and motivations for network participation.

Participant teachers' responses to various survey items were used to determine the extent to which they had access to various supports for effective teaching in their schools, and their motivations and involvement in various activities with their professional networks. In most cases, these questions were constructed to allow multiple responses to any one item, rather than asking binary questions about whether teachers had access to particular supports or not. Ideally, factor analysis or subgroup analysis might allow us to determine whether subgroups of teachers responded in significantly different ways about motivations, participation and access to supports; as well as how various conditions and motivations may be interrelated. However, the large number of incomplete responses compromised attempts to produce any such estimates in a meaningful or valid way. We therefore report straightforward response percentages from the pooled survey sample; future repeated surveys of this population may provide data that will allow for more nuanced and rigorous analysis.

Planned retention. The survey sample included 175 teachers who had, at the time of their response, left the classroom. These "leavers" were asked about factors that led to their departure from teaching, and to identify the most important factor in that decision. We report the responses from the leaver subgroup in this report.

The "stayers" – remaining teachers in the sample who were still actively employed in schools at the time of the survey – were also asked about their plans to stay in or leave the profession over the coming years, and the factors affecting those prospective career decisions. Stayers were asked to report their planned retention at one, three, five, ten, and fifteen years into the future, as well as the factors that might impact those decisions. Because the subsample of stayers was much larger, it was less affected by missing responses. We therefore had a sufficiently large pool of data on career intention factors, on which we were able to conduct regression analysis to determine which of these factors (if any) had impacts that were statistically significant. Again, however, small subgroups prevented us from controlling completely for school type, teacher characteristics or demographics.

We emphasize that where we report information on career intentions of stayers, this reflects merely their *intent* to stay or leave their school or the profession at the time of their response to the survey, and may or may not bear on their actual decisions at a later time. Importantly, the lists of factors provided to leavers and stayers were somewhat different. This difference prevents us from comparing the impacts of various factors on stayers' or leavers' career decisions (actual or intended); likewise, we cannot draw any conclusions about the likelihood of accurate predictions being made by stayers.

Qualitative

The 29 interviews were transcribed verbatim and read in full two times: once to provide us with a general picture of the themes emerging from the interviews, and the second to code the data. Three themes emerged from the interviews – (1) preparation, (2) collaboration, and (3) teacher leadership. In preparation and training, we included teachers' comments about their teacher education experience, professional development, mentoring, and any applicable involvement with the Teachers Network in the context of professional learning. In collaboration, we included work at their schools and mentoring along with their Teachers Network participation that involved teamwork and peer learning opportunities. Leadership included in-school, political, and Teachers Network leadership involvement and opportunities. We note that the responses of the teachers who were interviewed often represent an intersection of these themes. Thus, teachers' descriptions of experiences in their schools as well as in their affiliation with the Teachers Network might speak simultaneously to more than one theme.

During the second reading, teachers' responses were coded into one of the three categories. If they fit in more than one thematic grouping, they were cross-coded to reflect the multiple strands being addressed in that response. This is important because besides sorting the data, we also were aware of common themes, views that were reported by a critical mass of teachers. Finally, a preliminary report was written with a general statement on the voices of the teachers and a section on each of the three themes. That preliminary report, and the themes identified during our qualitative analysis, helped to guide the overall structure and a good deal of content for this final report.

Appendix B: Composition of the Teachers Network Survey Sample (n=1,210)

Teacher Characteristics	Percentage
Currently teaching in a school:	
Yes	85%
No	15%
Time currently worked as a teacher:*	
Full time	96%
Part time	4%
Currently hold other responsibilities at your school (beyond or other than teaching):*	
Yes	71%
No	29%
I teach in a...*	
Public school	93%
Private or parochial school	1%
Charter school	4%
Another kind of school	1%
I have been part of a network [through TN] for:	
1 year	32%
More than 1 year	28%
More than 3 years	15%
More than 5 years	17%
More than 10 years	8%
With which TN affiliate are or were you associated? <i>Select all that apply:</i>	
Boston	19%
Chicago	20%
Miami	15%
New York City	23%
Other locations	24%

*These items were asked only of respondents who reported that they were currently teaching in a school. "Leavers" are thus not included in the calculations of percentages on these items.

Appendix C: Estimates of School-Based Factors' Impact on Planned Retention

Teachers' Reports of Intentions to Remain in Teaching in Next 3 Years

Factor Named as "Important" in Respondents' Reported Retention Plans	Coefficient (Degree of significance noted by asterisks.)	P Value
Trust among staff	.02	.74
Support from colleagues	.04	.35
High standards of colleagues	.08	.19
Teachers at my school are always seeking to be better	0	.99
Cooperation among colleagues	0	.97

Teachers' Reports of Intentions to Remain in Teaching in Next 5 Years

Factor Named as "Important" in Respondents' Reported Retention Plans	Coefficient (Degree of significance noted by asterisks.)	P Value
Trust among staff	.08	.14
Support from colleagues	.02	.73
High standards of colleagues	-.04	.55
Teachers at my school are always seeking to be better	.04	.54
Cooperation among colleagues	.02	.79

Teachers' Reports of Intentions to Remain in Teaching in Next 10 Years

Factor Named as "Important" in Respondents' Reported Retention Plans	Coefficient (Degree of significance noted by asterisks.)	P Value
Trust among staff	.07	.23
Support from colleagues	.12*	.02
High standards of colleagues	-.08	.28
Teachers at my school are always seeking to be better	.02	.78
Cooperation among colleagues	.01	.83

Teachers' Reports of Intentions to Remain in Teaching in Next 15 Years

Factor Named as "Important" in Respondents' Reported Retention Plans	Coefficient (Degree of significance noted by asterisks.)	P Value
Trust among staff	.04	.48
Support from colleagues	.13**	.01
High standards of colleagues	0	.99
Teachers at my school are always seeking to be better	.05	.47
Cooperation among colleagues	-.06	.38

DATA SOURCE: Authors' analyses of Teachers Network data

*Coefficient shows that the factor is significant to teachers' reported career decisions at the $p < .05$ level.

**Coefficient shows that the factor is significant to teachers' reported career decisions at the $p < .01$ level.

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