McREL INTERNATIONAL

ctac | COMMUNITY TRAINING AND ASSISTANCE CENTER

Improving Teacher Practice

Debunking the myth of the performance plateau

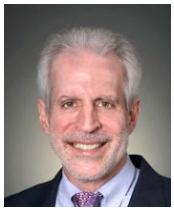
By Bryan Goodwin & William J. Slotnik

About the Authors

Bryan Goodwin is president and CEO of **McREL International**, a nonprofit organization that conducts research on and analyzes best practices in teaching, leading, and learning, and develops resources and services for educators, leaders, and systems.

A former teacher, college instructor, and journalist, Goodwin frequently presents at conferences across the U.S. and worldwide. He is the lead or co-author of numerous articles, white papers, and books such as *Unstuck: How Curiosity, Peer Coaching, and Teaming Can Change Your School; Curiosity Works: A Guidebook for Moving Your School from Improvement to Innovation; Balanced Leadership for Powerful Learning;* and *The 12 Touchstones of Good Teaching.*

For more information about McREL, please visit **www.mcrel.org**.



William J. Slotnik is the founder and executive director of the Community Training and Assistance Center (**CTAC**), a national nonprofit organization that builds the capacity of school and district leaders, teachers, parents, and community organizations to achieve sustainable, high-impact change.

Slotnik has authored or co-authored numerous evaluations and reports, including comprehensive, longitudinal evaluative studies of the impact of performance-based compensation on student achievement, teacher effectiveness, and systems change. In addition, he provides briefings to members of the U.S. Congress, the U.S. Department of Education, state legislatures and departments of education, and the media.

For more information about CTAC, please visit **www.ctacusa.com**.

McREL INTERNATIONAL

ctac | COMMUNITY TRAINING AND ASSISTANCE CENTER

Goodwin, B., & Slotnik, W. (2018). *Improving teacher practice: Debunking the myth of the performance plateau.* Denver, CO and Boston, MA: McREL International and Community Training and Assistance Center.

20180830

Improving Teacher Practice

Debunking the myth of the performance plateau

By Bryan Goodwin & William Slotnik

Let's dispel a myth about teachers: that they peak as professionals early in their careers, hitting a performance plateau after only a few years on the job.

This disheartening myth originated from a handful of studies (e.g., Kane et al., 2008; Boyd et al., 2008) and has become a sort of conventional wisdom—one that, if taken at face value, suggests teaching is, at best, a trade that can be grasped quickly. If that were the reality, then the best way to manage such a trade labor pool would be to hire people with sufficient background, train them up quickly, and remove those who do not meet a minimum bar of proficiency. Schools and districts would not need to give much thought to, or make much investment in, teachers' continual professional development and growth.

Let's dispel a myth about teachers: that they peak as professionals early in their careers, hitting a performance plateau after only a few years on the job.

As it turns out, though, newer, more sophisticated studies challenge both the validity and accuracy of this conventional wisdom. They reveal a major shortcoming in the earlier studies: They failed to track *individual teachers* over time, and instead assessed average performance of large cohorts of teachers based upon their years of service. As school systems have developed richer data sets that follow the same teachers over time, a clearer and more positive picture of their performance trajectories has emerged. It shows that teacher performance does improve dramatically during their first few years on the job, and it *continues* to improve in subsequent years, albeit less dramatically (Harris & Sass, 2011; Papay & Kraft, 2015). Like fine wines, teachers generally appear to keep getting better with time. That's good news.

A review of 30 studies published in the past 15 years (Kini & Podolsky, 2016) further debunks the conventional wisdom, finding that as teachers gain more experience, they are generally and increasingly more effective. Further, their effectiveness as teachers grows at a greater rate if they are working in a supportive school environment. That's even better news.

This positive news, however, is nuanced: Not *all* teachers get better. As one team of researchers noted, improvements in average teacher performance mask "substantial heterogeneity" in these data (Papay & Kraft, 2015, p. 118). That is, while most teachers keep honing and polishing their craft the longer they stay in the classroom, a fair number do not. These teachers appear to, as the saying goes, teach for 30 years—one year, repeated 30 times.

So, the real question we need to ask is, what separates these groups of teachers? In very concrete terms, what different steps do continuous improvers take to advance their teaching practices that flatliners appear to sidestep?

Here, the conventional wisdom of human capital management systems might say, *Well, we know that already. They move up the career ladder. Or they get a master's degree. Or they "understand the active nature of student learning and acquire information about levels of development for individual students" . . . it's right there in the rubric!*

That statement may contain elements of truth, but it fundamentally misses the point.

Let's step back a moment to consider what we're really trying to accomplish with human capital management systems—namely, ensuring we fill classrooms with talented teachers. Our perspectives

on developing talented teachers are drawn from more than 90 years of combined experience of the Community Training and Assistance Center (CTAC) and McREL International. We have worked with more than 40 state education agencies and hundreds of schools and school districts, providing technical assistance, conducting research, and informing public policy.

From these experiences, we think it makes sense to clarify that word, "talent." Conventional thinking might regard talent as an innate or fixed trait, yet researchers who study this sort of thing argue otherwise: Talent, in nearly every case, is *developed*.

In fact, over the years, researchers have studied thousands of people as they become expert in a variety of endeavors, from athletics to the arts to other professional undertakings. Across this broad swath of fields, they've identified some very consistent patterns, or phases, of talent development, which can reveal to us how teachers develop and become more expert.

A few decades ago, Benjamin Bloom (1985) led a team of researchers at the University of Chicago in a study of 120 concert pianists, sculptors, Olympic swimmers, world-class tennis players, research mathematicians, and neurologists that sought to figure out how these experts had developed their talents. Specifically, the researchers sought to map the journey of these experts—the steps and milestones they took and experienced along the way. As it turns out, the narratives of how these people developed their diverse talents were remarkably consistent and provided a sort of cartography for talent development.

Falling in love with your field

As people shared the personal stories of their journeys toward expertise, they often described their early years as a time of exploration and even joy as they learned the fundamentals of the field—whether it was hitting a tennis backstroke, playing simple songs on the piano, or making flip turns at a neighborhood swimming pool. Building on the earlier work of Alfred North Whitehead (1929), Bloom labelled this the "romance" phase. During this romance phase, the experts recalled having positive experiences with warm, nurturing teachers and coaches, who instilled passion in them and helped them to fall in love with their field.

Teachers are no different. Early on, they need plenty of positive experiences to develop a passion for teaching and learning. These experiences often come when they are students themselves. Perhaps a dynamic teacher inspires or encourages them to enter the profession, or they fall in love with a particular content area. Their initial forays into the classroom may spark a true passion for teaching, especially when they see light bulbs going on above students' heads.

As people shared the personal stories of their journeys toward expertise, they often described their early years as a time of exploration and even joy as they learned the fundamentals of the field.

During this initial phase of development—likely during pre-service preparation and through their first 1–2 years in a classroom—teachers benefit most from the tutelage of a nurturing, supportive mentor who makes them want to commit to getting better and honing their abilities. For teachers, this often means "falling in love" with the profession, seeing it as something they could spend a lifetime doing.

Imitating the experts and automating the fundamentals

These positive early experiences are important because the next phase of the journey toward expertise requires a period of nose-to-the-grindstone, focused effort. It's a time of "digging in" to the field with disciplined training, during which we move beyond the fundamentals, developing and solidifying routines to the point of automaticity. For musicians, that entails mastering scales and chords and learning to read music fluently. For athletes, it means building stamina in the pool or serving bucket after bucket of tennis balls. For artists, it's creating sketch after sketch to master such techniques as shading, perspective, and proportion.

This phase of the journey often requires a good deal of imitation (Coyle, 2009)—copying the works of the Dutch masters, observing and trying to replicate Serena Williams' forehand, or imitating Walter

Gieseking's rendition of "Clair de Lune." This phase characteristically isn't much fun. It takes hard work and lots of repetition. However, by this point on the journey, those who have already "bought in" to the field don't begrudge the hours of practice. They're keen to get better and seek coaching feedback to help them progress.

Yet it's often at some point during this phase that many people stop improving. Further honing our skills requires continued mental effort, or what Nobel Prize-winning cognitive scientist Daniel Kahneman refers to as "cognitive strain" (2011, p. 59). The trouble is that our brains prefer slow thinking; we're most "comfortable in low-effort mode" (p. 24). Developing expertise, though, requires continual reflection to hone our skills—resisting our brain's urge to revert back to low-effort mode.

Consider teaching. At first, teachers have many skills to master—writing lesson plans, delivering feedback on student work, keeping a grade book, managing classrooms—the list goes on and on. When teachers first develop these skills, they feel mechanistic and consume most of their mental bandwidth. Over time, though, they get easier. Teachers begin to internalize the natural flow of lessons. They "sense" the right pace of learning, become adept at checking for understanding, develop a classroom persona, and learn to redirect disruptive students to more productive behaviors.

When this happens, usually after a few years in the profession, things begin to feel easier. Teachers master the basic routines to the point they don't have to think about them anymore—which is precisely when they're apt to get stuck. The temptation is to enjoy the fruits of one's mental labors and slip into low-effort mode. Yet if teachers are to continue along the journey toward expertise, they must resist that urge, so schools and districts would be wise to provide them with coaches who can help them continue to reflect on and improve their practice.

Forging ahead with conscious incompetence

Moving beyond the point of imitation and avoiding slipping into low-effort mode requires a whole new phase of learning. This phase is sometimes described as a period of "conscious incompetence" (Howell, 1982), when we know what we don't know and thus engage in what Anders Ericsson and colleagues (Ericsson, Krampe, & Tesch-Römer, 1993) described as "deliberate practice"—reflecting on our current learning and searching for new methods and knowledge to stretch ourselves to engage in ever more learning and relearning.

If we want to play lead guitar, we must go beyond simply strumming and learn how to pluck individual strings. If we want to display our artwork in a gallery, we must move beyond painting inanimate fruit and learn how to capture the motion of ocean waves. In short, just as we start feeling competent with what we're doing, we need to start anew, burdening ourselves with the cognitive load of mastering additional and increasingly complex techniques.

Keeping our brains amped up to high-effort mode and teaching ourselves new techniques is difficult to do—yet it's what separates experts from amateurs. In fact, researchers have found that champion ice skaters don't practice *longer*; rather, they use their time in a more focused way. They practice the spins and jumps they haven't yet perfected, in contrast to those who spend most of their practice time rehearsing moves they've already mastered (Ericsson, Roring, & Nandagopal, 2007).

Keeping our brains amped up to high-effort mode and teaching ourselves new techniques is difficult to do—yet it's what separates experts from amateurs.

If we want to strengthen teachers, wisdom says we ought to provide them with opportunities to focus their creative talents and support them in applying their skills in different ways.

Developing multiple mental models

Moving beyond competence to expertise also requires something else: redirecting our mental energies to the world beyond our own minds and bodies. For example, once we've mastered dribbling a basketball, we must begin to consider what other basketball players on the court are likely to do. And

once we learn to play a song on the piano without missing a note, we must begin to consider how to play it with style and feeling that connects with listeners.

Indeed, what begins to distinguish experts is their ability to look beyond themselves or to view themselves from an outsider's perspective by engaging in mental slow-motion replays and self-critiques of their performances. Doing so ultimately results in another key component of expertise—developing and using multiple "mental models." We test and retest hypotheses by asking ourselves: What went right and what went wrong? It's through this process of ongoing reflection that we become experts. According to seminal research on expertise (Newell & Simon, 1972), experts continually develop and refine multiple "mental models"—with special emphasis on *multiple*.

Experts don't get stuck on a single interpretation of events (like the Far Side cartoon of an airline pilot looking out his cockpit, spotting a mountain goat, and remarking to his copilot, "Say, what's a mountain goat doing in a cloud bank?"). Rather, they continually draw upon a broad base of knowledge to check and recheck their assumptions—like a quarterback reading the opposing team's defensive formation and calling an audible to shift to a different play.

For teachers, the process is much the same. When students struggle, expert teachers draw upon a variety of mental models to diagnose the problem. Are students not yet reading with automaticity? Do they lack background knowledge? Or do they have a fixed mindset about challenging content? Rather than concluding a student cannot learn, expert teachers ask themselves: What can *I* do differently to help him learn? Schools and districts that nurture this kind of reflective thinking are getting past the restrictive box of conventional thinking and, instead, helping teachers to become more expert practitioners.

Unleashing creativity

Having multiple mental models at our ready disposal creates a seedbed for creativity and innovation to sprout in our professional practice. It's what allows jazz musicians to improvise: They're still following the same chord progressions as the original tune, but they're able to throw in extra notes, often spontaneously, because they've internalized another set of routines—jazz scales—and then listen for what sounds good (in the words of jazz legend Duke Ellington, "If it sounds good, it is good"). What creativity often boils down to is knowing the rules so well that we see when and how to break them. Painters such as Picasso or Monet created wildly inventive works of art by breaking contemporary conventions of perspective and detail.

Great teachers operate in a similar zone. They develop new and innovative ways to help students learn. Some "break the rules," for example, by spurning traditional classroom practices in favor of independent learning. Others set aside scripted learning from textbooks and help students consult primary sources to write their own accounts of historical events or engage in rigorous, natural studies of local biomes. As these teachers unleash their creativity, so do their students.

Great teachers operate in a similar zone. They develop new and innovative ways to help students learn. As these teachers unleash their creativity, so do their students.

We see and admire these great teachers and often assume, incorrectly, that they're naturally so *talented*. What we know about talent development, though, is that reaching this pinnacle of teaching requires a deep understanding of and appreciation for conventions—like standards and curricular expectations. It also requires expert mental models of pedagogy that aid in checking for student understanding and guiding their learning. Creative teachers understand that their ambitions must be grounded in high expectations and a highly developed pedagogy before they can go on to achieve genuine innovation in the classroom.

Supporting career-long growth with a talent development system

We believe it's time for U.S. schools and districts to embrace and stimulate innovation through their human capital management systems. The U.S. is considered a global hotbed of creativity in other sectors, yet several years of top-down direction (under ideologically different presidents) have stifled innovation in U.S. schools, according to a 2014 analysis by the Organisation for Economic Co-operation and Development. To help our schools embrace innovation, we believe it's time to shift our thinking from the conventional wisdom of human capital management to something wiser and less conventional: career-long *talent development.*

We might start with a simple premise, the reason we engage in education in the first place: We believe people can learn and grow for an entire lifetime. That includes educators.

What would such a system look like? We might start with a simple premise, the reason we engage in education in the first place: We believe people can learn and grow for an entire lifetime. That includes educators. With that premise in mind, we would create a system that nurtures teachers' talent at each stage. It might look like this:

Stage 1

Ensure that people who enter the system demonstrate a passion for *teaching*. More than just a passion for kids, or for Shakespeare, or for science, the emphasis needs to be on a passion for *teaching*. We need to look for people who are full of enthusiasm for teaching and have fallen in love with the profession—and make that a prerequisite for entering the education career field. Incidentally, this is exactly what is done in Finland, which has a much publicized high-performing education system. Although Finnish universities accept only 10 percent of applicants into teaching programs, those accepted aren't necessarily the most academically gifted students ("the best and brightest") but rather, people who demonstrate the most likelihood to grow in the profession. They show passion for education as well as strong content knowledge and commitment to working with kids (Sahlberg, 2015).

Stage 2

Provide new teachers with models to follow. Often, we throw new teachers into the deep end without a life preserver and ask them to swim. Instead, we need to provide teachers with models that illustrate what good teaching looks like and how students learn. And they need to know how to use these models based on their individual starting points as teachers. Decades of research, for example, shows that providing teachers with a consistent instructional model, like Explicit Direct Instruction (which combines direct instruction with independent learning) is consistently one of the most powerful ways to improve student achievement (Hattie, 2008). When we consider the phases of talent development, it's easy to see the value of providing teachers with research-based models: They shorten teachers' learning curves by letting them "copy" from master teachers.

Stage 3

Develop the expertise of mid-career teachers through reflection and peer coaching. Models shorten the learning curve, but usually don't help teachers get much *smarter* about their profession. Moreover, even the best models or programs won't work all the time for all the kids. So, we need teachers to be experts—smart professionals who can employ multiple mental models to diagnose and solve student learning challenges. We cannot force anyone to become an expert. Nor can we cram expertise into someone's brain. Rather, it's something that develops over time through continuous learning and working with skilled peers. Joyce and Showers (2002) highlighted this long ago—that teachers only transfer new professional learning into their actual classroom practices when introduction of theory, modeling, and practice are combined with peer coaching. Teachers need to work together to refine their practices and get new ones to stick.

Stage 4

Create opportunities for teachers to engage in self-directed learning. Nowadays many people are espousing personalized, self-directed learning for students. We need to espouse the same thing for teachers. Instead of trying to equate teachers' professional learning with checking boxes in an evaluation framework, a *talent development* system would unleash their potential by telling them that once they demonstrate they've mastered the district- or school-wide instructional model (which research shows will move the needle significantly for student achievement; see for example, Hattie, 2008), they can then guide their own professional learning. We can then provide them with road maps for doing so—areas where we know that improving practice will also improve learning—and then use a system of micro-credentialing to reward them for their efforts (awarding certifications for learning specific new skills and content). Unlike systems that dampen innovation and frustrate teachers, such a system would expand teachers' creativity and nurture their passion for the profession.

These aren't far-fetched ideas. Trailblazers such as Virginia's Henrico County Public Schools (Community Training and Assistance Center, 2016a) and Prince William County Schools (Community Training and Assistance Center, 2016b), and the Clarksville-Montgomery County School System in Tennessee (McREL, 2017), have implemented professional development initiatives rooted in genuine wisdom about talent development, while staying clear of quick fixes rooted in conventional wisdom. The results? The initiatives in all three districts showed increases in student achievement that were both statistically and practically significant—including, often, at their lowest-performing schools.

Adopting these practices requires us to acknowledge that many of the "get tough" approaches to annual performance appraisals that have been in vogue over the last 10–20 years have backfired—not just in education but in business too. Microsoft, for example, learned the hard way that heavy-handed "rank-and-yank" approaches to performance development and appraisals led to a decade of stagnation. So, it pulled the plug on these approaches in favor of encouraging employees to set stretch goals and receive real-time feedback from supervisors to help them achieve those goals.

Does this mean we ought to scrap our current systems and frameworks for evaluating educators altogether? Not at all. Rather, we might need to look at them with a different perspective—namely, through the lens of developing talent, rather than by sorting and selecting so-called "human capital." For example, in the evaluation systems McREL has developed for several states and districts, we've avoided using terms like "ineffective" or "unsatisfactory" for the lowest level of the rubrics in favor of the term "developing." It's more than a semantic difference as it captures what we believe ought to be the underlying philosophy of any evaluation system—to guide *talent development.*

Does this mean we ought to scrap our current systems and frameworks for evaluating educators altogether? Not at all.

For more than a decade, we've applied a lot of the "dismal science" of economics to public education, building complex human capital systems (and formulas) to measure, track, and reward teacher performance. Yet we've applied too little of the science and psychology of *talent development* to our efforts, leaving open the critical question of *how* exactly these systems will result in better teachers—how they'll move a teacher from point A to B along a talent trajectory.

In short, the actual process of teacher talent development has remained undervalued in many of our efforts to improve the schools. And the result? In the words of an experienced teacher from Maryland, "Teachers are always in the third year of a five-year plan."

That's not right.

If we truly want more innovative, creative schools, we cannot simply select and sort professional talent. We must *develop* expertise, creating unconventionally wise systems that focus on helping educators flourish and grow throughout their careers.

Reflecting on your school/district's talent development system

Great teaching doesn't just happen. Consider these questions to start a discussion in your district about whether you're doing everything you can to hire and develop talented teachers and leaders.

- What specific characteristics do our best teachers and leaders display, and are we looking for those characteristics when hiring new staff? Are we effective at hiring only those new teachers and leaders who have the potential to become experts? How do we know?
- What skills and abilities are we prepared to help our new teachers and leaders develop over time? How are we helping our current teachers and leaders push past their professional comfort zones in order to deepen their expertise?
- Are our human resource department's goals and plans aligned with our professional development department's goals and plans?
- Do our current personnel performance appraisals help our teachers and leaders get better at their jobs? How so? What could we do differently to make our performance appraisals more focused on professional growth, rather than a simple compliance-oriented ranking and sorting of staff?
- Do our professional development activities and resources make a difference in the classroom? How do we know? How are we recognizing and rewarding staff who demonstrate effective instructional practices and professional growth?
- Do our teachers and leaders have the skills, knowledge, ability, and empowerment to undertake a pathway of reform? Do our schoolwide/districtwide learning environments and system protocols encourage and empower teachers and leaders to reflect on and thoughtfully modify their professional practices?

References

Bloom, B. S. (1985). *Developing talent in young people.* New York: Ballantine Books.

Boyd, D. J., Grossman, P. L., Lankford, H., Loeb, S., & Wyckoff, J. H. (2008). Teacher preparation and student achievement. *Educational Evaluation and Policy Analysis, 31*(4), 416–440.

Community Training and Assistance Center. (2016a). *When educators learn, students learn.* Boston, MA.

Community Training and Assistance Center. (2016b). *Getting the pieces right: Professional development, compensation, and school-wide performance.* Boston, MA.

Coyle, D. (2009). *The talent code: Greatness isn't born. It's grown. Here's how.* New York: Bantam Dell.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review, 100*(3), 363–406.

Ericsson, K. A., Roring, R. W., & Nandagopal, K. (2007). Giftedness and evidence for reproducibly superior performance: an account based on the expert performance framework. *High Ability Studies, 18*(1), 3–56.

Harris, D., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of Public Economics, 95*(7–8), 798–812.

Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement.* New York: Routledge.

Howell, W. S. (1982). *The empathic communicator.* Belmont, CA: Wadsworth Publishing Company.

Joyce, B., & Showers, B. (2002). *Student achievement through staff development* (3rd ed.). Alexandria, VA: ASCD.

Kahneman, D. (2011). *Thinking fast and slow.* New York: Farrar, Straus & Giroux.

Kane, T. J., Rockoff, J. E., & Staiger, D. O. (2008). What does certification tell us about teacher effectiveness? Evidence from New York City. *Economics of Education Review 27*(6), 615–631.

Kini, T., & Podolsky, A. (2016). *Does teaching experience increase teacher effectiveness? A review of the research.* Palo Alto, CA: Learning Policy Institute.

McREL International. (2017, March 22). *Coaching is the key to systemic improvement for growing Tennessee district.* Denver, CO: Author.

Newell, A., & Simon, H. A. (1972). *Human problem solving.* Englewood Cliffs, NJ: Prentice-Hall.

Organisation for Economic Co-operation and Development. (2014). *Measuring innovation in education: A new perspective.* Educational Research and Innovation, OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264215696-en

Papay, J. J., & Kraft, M. A. (2015). Productivity returns to experience in the teacher labor market: Methodological challenges and new evidence on long-term career improvement. *Journal of Public Economics, 130,* 105–119.

Sahlberg, P. (2015, March 31). Q: What makes Finnish teachers so special? A: It's not brains. *The Guardian.* Retrieved from https://www.theguardian.com/education/2015/mar/31/finnish-teachers-special-train-teach

Whitehead, A. N. (1929). *The aims of education.* New York: The Free Press.

Get help with the right next steps

McREL and CTAC can assist your state, school district, or education organization achieve its talent development and human capital management goals. Using the power of our combined expertise and resources, we'll help you strategically analyze, plan, and deliver systemwide changes for improvement that will make a difference for your teachers, leaders, and students.

For more information:

McREL INTERNATIONAL

800.858.6830
info@mcrel.org
www.mcrel.org

ctac | COMMUNITY TRAINING AND ASSISTANCE CENTER

617.423.1444
ctac@ctacusa.com
www.ctacusa.com

McREL INTERNATIONAL
4601 DTC Blvd., Suite 500, Denver, CO 80237-2596
800.858.6830 | www.mcrel.org

About McREL

McREL International is a nonprofit, nonpartisan organization committed to improving education outcomes for all students through applied research, product development, and professional service to teachers and education leaders. We collaborate with schools and school systems across the U.S. and worldwide, helping educators think differently about their challenges and providing research-based solutions and guidance that help students flourish.

ctac | COMMUNITY TRAINING AND ASSISTANCE CENTER
30 Winter Street, 7th Floor, Boston, MA 02108
617.423.1444 | www.ctacusa.com

About CTAC

CTAC is a national, minority-controlled, nonprofit organization with a demonstrated record of success in the fields of education and community development. Working at local, state, and national levels, we achieve significant, long-term improvements in areas such as student achievement, teacher effectiveness, and organizational capacity. Our priority is addressing the root causes of poverty in low-income communities and communities of color.