

A System Approach to Building a World-Class Teaching Profession: The Role of Induction

A new policy and economic environment promises to upend the twentieth-century blueprint for high schools that has left large numbers of students without diplomas or the advanced skills to succeed in college and careers. In a flattening global economy, many more students must perform at high levels to ensure the nation's economic and social well-being. Almost all states have responded to the urgency to increase educational outcomes by adopting the common core state standards, which are internationally benchmarked against the highest-performing nations. Long-standing concerns remain, however, about whether states have an educator workforce or the capacity to produce one with the training and skills needed to deliver high-quality content to all students. If the dominant teacher workforce policies and practices remain unchanged, then the aspirations of the common core standards will simply continue a legacy of unfulfilled reforms.

To achieve a fundamental transformation of education and help students meet the higher performance set by the common core standards, the very culture of how teachers are supported must change. It will require coherent incentives and structures to attract, develop, and retain the best teaching talent in high schools serving students with the greatest needs. The challenge of preparing all students for the modern workplace rests with developing the collective capacity of an entire profession to address the needs of all learners. Teaching conducted largely out of sight and hearing of other teachers must cease to be the norm. A new paradigm is needed to construct a consistent vision of quality teaching—one that is anchored in a system of performance assessments and leveraged through the design of clinically based preservice programs, comprehensive induction (see box at right), and collaborative professional learning.

Teaching quality is recognized as the most powerful school-based factor in student learning. Quality teaching outweighs students' social and economic background in accounting for differences in student achievement.¹ Studies show that having an effective teacher versus a

less effective one can lead to enormous differences in achievement test score gains.² Moreover, analyses of longitudinal data sets reveal that teachers exert an accumulating influence—a series of superior teachers can overcome the learning deficits between low-income students and their more advantaged peers. Likewise, the residual effects of having a poor teacher are devastating.³ Unfortunately,

Comprehensive Induction

The cumulative research on induction offers a strong argument for providing beginning teachers with a comprehensive package of supports. "Comprehensive induction" combines

- high-quality mentoring with rigorous mentor selection criteria;
- common planning time for regular scheduled interaction with other teachers;
- participation in seminars and intense professional development; and
- ongoing communication and support from school leaders.

Source: T. Smith and R. Ingersoll, "What Are the Effects of Induction and Mentoring on Beginning Teacher Turnover?" *American Educational Research Journal* 41, no. 2 (summer 2004).

commitment has only rarely existed across state and district lines to build and sustain a strong teaching profession. Persistent inequities in the distribution of talented, well-prepared teachers continue to lay to waste historic promises of equal education opportunity.

The variation in teaching quality is most acute in high schools that serve low-income students and students of color. Disparities in the distribution of skilled teachers placed in high-need high schools have persisted despite provisions to ensure teacher equity in the last reauthorization of the Elementary and Secondary Education Act, known as the No Child Left Behind Act. Research from the Center for the Social Organization of Schools, a division of Johns Hopkins University, shows that low-income students and students of color are six times more likely than their white peers to attend a dropout factory, one of the more than 1,500 U.S. high schools where fewer than 60 percent of students graduate on time.⁴ Schools serving urban and poor students are more likely to employ teachers who are on emergency waivers and who are not certified in the subject they teach.⁵ These students have only a 50 percent likelihood of being taught math and science by teachers who hold a degree and a license in the field they teach.⁶

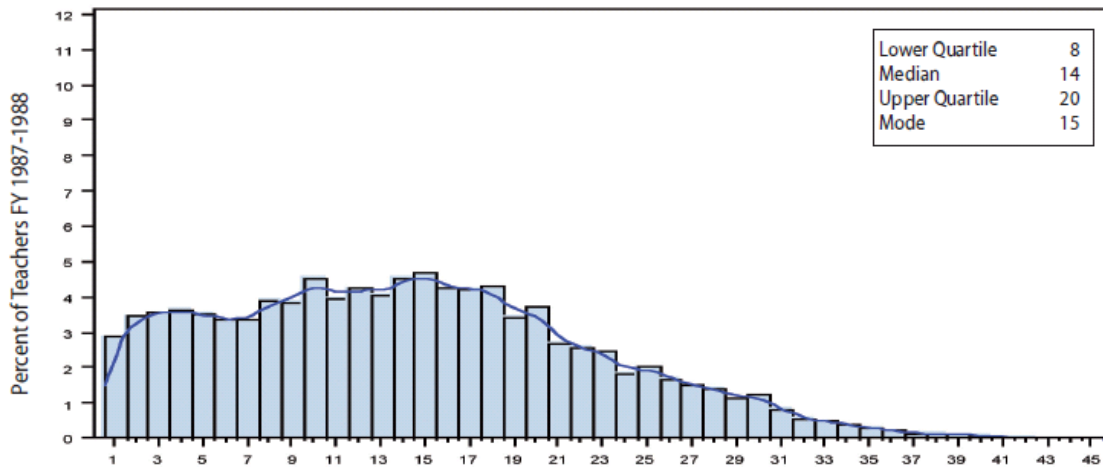
Students are not the only ones whose ability to learn suffers in low-performing schools. Too often, teachers in schools serving students from high-need environments lack access to excellent peers and mentors and have fewer opportunities for collaboration and feedback. Moreover, without opportunities to engage with others to examine and improve instructional practices, teachers' performance in high-poverty schools plateaus after a few years.⁷ In these lowest-performing high schools, morale and work environment take a downturn because hard-to-staff schools become known as places to leave, not places in which to stay.

About 15 percent of the American workforce of 3.5 million teachers either moves (255,700) or leaves the profession (269,800) each year.⁸ The size of the teaching force coupled with the high annual turnover rates seriously compromises the nation's capacity to ensure that all students have access to skilled teaching. Researchers estimate that in a twelve-month period more than one million teachers—almost a third of the workforce—transition into, between, or out of schools.⁹ High-poverty schools experience a teacher-turnover rate of about 20 percent annually—roughly 50 percent higher than the rate in more affluent schools.¹⁰ The estimate of the percentage of new teachers leaving after five years ranges from 30 to 50 percent, with the greatest exodus taking place in urban areas.¹¹ The cumulative costs of attrition are high—the National Commission on Teaching and America's Future estimates that the nation's school districts spend at least \$7.2 billion a year on teacher turnover.¹² Studies suggest that the price tag for recruitment and replacement seriously underestimates the cumulative costs for eroding the caliber and stability of the teacher workforce, particularly in chronically underperforming schools serving the neediest students.

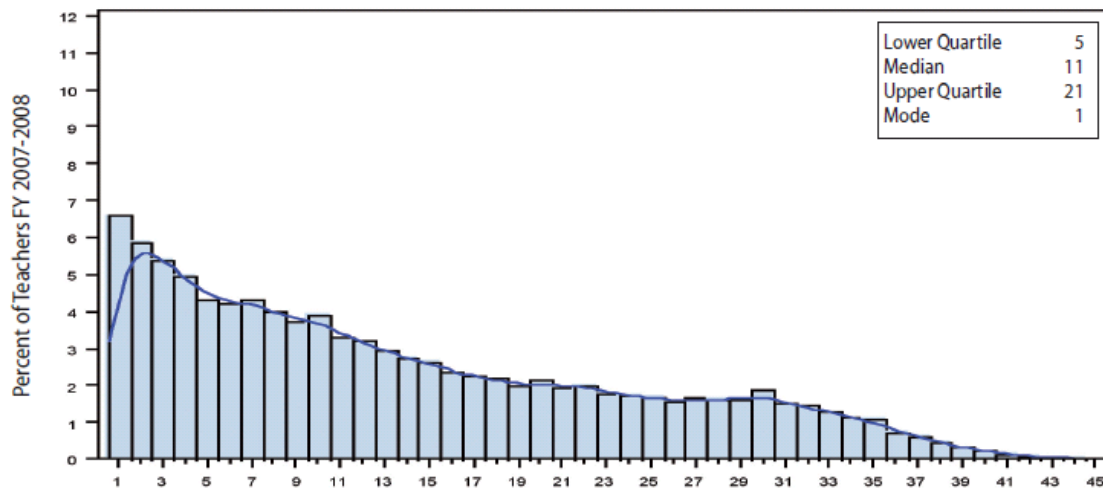
While the number of beginning teachers has steadily increased over the past twenty years, so has the workforce turnover, resulting in a significant drop in teacher experience.¹³ Since the mid-1980s the significant expansion of the teaching workforce has been accompanied by rising attrition among beginning teachers and increased rates of retirement for veterans. Moreover, the attrition rate of first-year teachers—now the largest group within the occupation—has increased by more than 40 percent over the past two decades.¹⁴ The influx of new teachers has neither stabilized the teaching workforce nor improved teaching quality.¹⁵ In 1987–88, the modal, or most common experience level, was fifteen years; by 2008, the typical teacher was in his or her first year of teaching.¹⁶



Public School Teacher Experience Distribution 1987-1988



Public School Teacher Experience Distribution 2007-2008



Source: T. Carroll and E. Foster, "Who Will Teach: Experience Matters," (Washington, DC: National Commission on Teaching and America's Future, January 2010).

Why Is Turnover So High?

Richard Ingersoll, professor of education and sociology at the University of Pennsylvania, found that the major factor in turnover included job dissatisfaction and/or the desire to pursue a better job or career opportunity in or out of education. Of those who depart because of job dissatisfaction, most link their decision to leave to inadequate administrative support, isolated working conditions, poor student discipline, low salaries, and a lack of teacher influence over decisionmaking.¹⁷ Ingersoll writes, "In short, the data suggest that school staffing problems are rooted in the way schools are organized and the way the teaching occupation is treated and that lasting improvements in the quality and quantity of the teaching workforce will require improvements in the quality of the teaching job."¹⁸

Studies on working conditions and school context indicate that workforce policies are unlikely to advance the national goals for improving teaching effectiveness and preparing students for the modern workplace if they fail to address these root causes.¹⁹ The teaching profession must be organized and supported to teach all, not just a few, students. Since the 1990s, studies have shown the benefits of



organizational strategies that foster higher levels of teacher collaboration and peer learning.²⁰ This research shows that social capital—the patterns of interaction among teachers and administrators focused on student learning—affects student achievement and school success across all types of schools and grade levels.²¹ Building the collective capacity for strong high school performance requires creating a school culture where it is assumed that the improvement of teaching is a collective rather than an individual enterprise.²² As documented in the 2009 *MetLife Survey of the American Teacher: Collaborating for Student Success*, 90 percent of teachers believe that they share responsibility for student achievement, their success is linked to that of their colleagues, and increased collaboration in schools would have a major positive effect on student achievement.²³

Teachers are more likely to change their teaching practices and improve student learning in the presence of effective peers. Using eleven years of matched teacher and student achievement data, Jackson and Bruegmann found that an individual teacher's students have larger achievement gains in math and reading when other teachers in the schools are more effective.²⁴ The authors tested different reasons for the increased productivity of teachers in improving student achievement in the presence of colleagues who had better estimated effectiveness than themselves. They concluded that the effects were due to peer learning, either directly or indirectly induced through a teacher's decision to invest effort in acquiring new teaching skills. They found that positive spillovers are strongest for less-experienced teachers who are still acquiring “on-the-job” skills, and that both current and historical peer quality changes affect *current* student achievement.²⁵ Because learning has long-term effects, the historical, cumulative exposure to peers proves to be a powerful predictor of improved student achievement.

The authors caution about policies and practices that fail to attend to the important impact of peer learning within a specific school context and argue for spreading good teachers across schools and grades to improve teaching efficiency. High concentrations of inexperienced teachers in urban schools without sufficient supports can derail strategies to improve teacher effectiveness and student achievement overall. These findings call into question the conventional wisdom about the teacher as a single unit of accountability. Despite this research, high-intensity, job-embedded collaborative learning is not common among teachers in America's high schools.

Teaching is complex work. Teachers need deep content expertise along with knowledge of development and learning in order to make content meaningful to diverse groups of learners. They must understand how students' learning develops within a subject area, the nature of gaps in students' understanding that may arise, and the strategies to connect each learner with deep content knowledge. Teachers make countless complex decisions each day. They need to informally assess how much students know and can do as well as where and why they might be struggling—and modify instruction accordingly.²⁶ At the same time, the numerous ways to advance student learning require teachers to be able to receive feedback and reflect on their practice with others.

Researchers estimate that between 2.9 and 5.1 million full-time teachers will need to be hired between 2008 and 2020.²⁷ Short-term, supply-side strategies may result in treating teachers like interchangeable, expendable parts, rather than as young professionals meriting sustained investments in their development as part of a community of expert, experienced teachers. Federal and state attention to investing in educators has waned since the 1980s, driven increasingly by a theory of action that leverages instructional improvements through external accountability. During this time, the practice of hiring uncredentialed, inexperienced teachers to fill classrooms in predominantly minority schools became commonplace, especially in states with large minority and immigrant populations.²⁸ In 2008, Ed Trust reported that nationwide about 40 percent of all core-subject-area classes in high-poverty, high-



minority secondary schools were staffed by out-of-field teachers.²⁹ In addition, new recruits often lacked access to any substantive and consistent form of induction support once they began teaching.³⁰

These practices undermined teaching as a profession and contributed to strong linkage between socioeconomic disadvantage and student performance in the United States. Other developed countries, however, do not seem to have difficulties supplying the teacher pipeline with candidates who are well prepared to teach secondary-level courses such as math, chemistry, and physics. Consider Japan, which has almost no out-of-field teachers, compared to the United States, where one-third of secondary math teachers did not major in math or related disciplines.³¹

Furthermore, state credentialing—generally following completion of preservice training, whether through a traditional university or an alternative program—has served as a weak proxy for teacher effectiveness. Licensure depends mostly on inputs—academic degrees, years of experience, and paper-and-pencil exams—that are poor predictors of later effectiveness in the classroom. Current systems for conferring professional status neither generate detailed information about a teacher’s performance that can inform decisions about hiring and placement nor provide feedback to support professional learning.³² Many administrators and teacher educators conclude that the lack of well-supervised clinical training throughout preparation and during the initial years of teaching accounts for many of the problems facing new teachers.

Daniel Fallon, professor emeritus of public policy and psychology at the University of Maryland, writes, “The only preparation that most beginning teachers had was the semester-long student-teacher experience. This was not sufficient. Student teachers had not survived a series of instructional failures, experienced students’ boredom, discovered a wall of student learning resistance, or felt the isolation of ‘teaching forever.’” Teachers need from three to seven years in the field to become highly skilled—with the analytic and flexible thinking needed to engage learners, deepen their conceptual understanding, and respond to how well they are learning.³³

Impact of Induction

Over the past two decades, research shows that retention is more positively related to the quality of the first teaching experience than to prior academic performance or the adequacy of teacher education.³⁴ Analyses of large-scale national databases—the Schools and Staffing Survey (SASS) and the Teacher Follow-up Survey (TFS)—established the correlation between the level of support and training provided to beginning teachers and their likelihood of moving or leaving after their first year.³⁵

In a report by the Project on the Next Generation of Teachers, Susan Moore Johnson, the Jerome T. Murphy Professor in Education at Harvard University, and her colleagues found that new teachers’ decisions to transfer out of low-income schools were related to the extent to which those schools supported them by providing well-matched mentors, valuable induction programs, and appropriate curricular guidance. “Given the many challenges of working in low-income schools,” the report concludes, “teachers need to have broad, substantive support from a range of experienced colleagues. At a minimum, new teachers in these schools need substantive, structured, regular interactions with expert, veteran colleagues.”³⁶

By the first decade of the twenty-first century, compelling new research linking the performance of individual students with specific teachers led many analysts to the clear conclusion that the quality of the teacher was the most important factor in producing student achievement gain. As a result, a growing



number of states have induction support programs in place for beginning teachers—programs that education researchers have been calling for since the 1970s.³⁷

The percentage of beginning teachers who report that they participated in some kind of induction program in their first year of teaching has steadily increased over the past two decades. Beginning teachers reporting that they have a mentor or master teacher working with them during their first year have increased from about 40 percent in 1990 to almost 80 percent as of 2011.³⁸ Even though the number of states that currently require, and in some measure fund, induction programs for new teachers has continued to climb, the overall character and content of these programs vary widely, including duration, intensity, frequency of mentoring, training and criteria for mentor selection, and compensation for mentoring. Unfortunately, there are only two states—South Carolina and Utah—that provide at least 51 percent of beginning teachers with four of the most common supports: mentoring, reduced preparation/course load, seminars/workshops, and supportive communication with a principal or department chair.³⁹

Although recent surveys show that states have made strides in offering induction opportunities, access to induction supports remains inequitable, with teachers in schools with the highest concentrations of poor and minority students reporting significantly lower participation rates in induction and mentoring.⁴⁰ This troubling support gap for teachers is pervasive in low-income schools, where fewer teachers have mentors than their counterparts in more affluent schools. Those who do have mentors are less likely to be paired with an experienced teacher in the same school, grade, or subject; and mentoring discussions—when they occur—are less likely to focus on issues of classroom teaching.⁴¹

The Case for Comprehensive Induction

A review of selected, well-designed empirical studies conducted since the 1980s shows positive effects of induction for beginning teachers.⁴² Since induction has become widespread, most of the studies have compared teachers according to their degree of participation—with more or less participation in one or more induction components. As the number of supports increased, attrition rates for beginning teachers declined, they performed better at various aspects of teaching, and, most significantly, their students had higher scores or greater gains on academic achievement tests.

The induction elements producing the strongest effects included having a mentor from the same field, having common planning time with teachers in the same subject, and having regularly scheduled collaboration with other teachers. Reducing teachers' preparation/course load or providing extra classroom assistance produced only weak effects on any of the outcomes. The researchers concluded that programs should focus on the selection and training of mentors to provide beginning teachers with same-subject mentors, opportunities to collaborate with other teachers, and assurance of high levels of administrative support. Overall, teachers receiving a more comprehensive package of these induction components achieved higher levels on all three outcomes:

- teachers' job satisfaction, commitment, and retention;
- teachers' classroom teaching practices and pedagogical methods; and
- student achievement.

A comprehensive induction program that comprises multiple types of support, such as high-quality mentoring, common planning time, and ongoing support from school leaders,⁴³ reduced by one-half the



turnover rate of those receiving induction in comparison to those receiving none.⁴⁴ However, only 1 percent of beginning teachers currently receive the ongoing training and support that constitutes comprehensive induction; for those who receive some level of support, only about half of novices receive mentoring from a teacher in their teaching field or have common planning time with other teachers.⁴⁵

However, many questions remain on specific aspects of induction and on the factors that produce differential effects of induction between low- and high-poverty schools. The content, duration, and delivery of programs vary greatly. More information is needed to distinguish the specific program elements—such as mentoring, release time, seminars, and teacher collaboration—and to assess how they affect changes in teaching practice and improved student learning. Perhaps as important is ascertaining the relationship of evaluation programs that define and measure teaching effectiveness with the impact of induction on teachers and teaching practice. Researchers, along with teacher educators, question whether an induction program can simultaneously promote a teacher’s skill in engaging students in higher-order inquiry while also emphasizing his or her ability to prepare students for standardized test taking.⁴⁶

Mixed effects for new teacher induction programs in high-poverty schools compared to low-poverty schools may be attributable to substantial differences in the quality of programs, the organizational context, and the nature of instruction and teaching practice. New teachers in high-poverty schools must frequently follow prescriptive district mandates regarding what they teach and how they teach along with extensive requirements for test preparation. The 2004–05 *MetLife Survey of the American Teacher: Transitions and the Role of Supportive Relationships* finds that teachers at risk for leaving the profession are more likely to be teaching in urban, low-income schools with high concentrations of minority students.⁴⁷ Beginning teachers are particularly vulnerable because they have a lack of support and poor working conditions and are more likely to be assigned low-performing students. New teachers reported being greatly stressed by administrative duties, classroom management, and testing responsibilities, as well as by a lack of relationships with their students’ parents.⁴⁸

Systemic Approaches to Professional Learning

Induction that is not part of a more systemic approach to professional learning may be insufficient to reduce the high levels of teacher turnover found in many urban, low-income public schools. Myriad evaluations chronicle the shortcomings in the general quality and duration of professional development offered to teachers in the United States. All teachers, particularly those working with students from high-poverty communities, need a supportive professional environment to teach effectively. Douglas Reeves, founder of the Leadership and Learning Center, determined that when only a handful of teachers implemented an effective practice well, there was little impact on student learning.⁴⁹ In contrast, schools achieving more than 90 percent implementation of research-based strategies experienced gains in reading, math, and science three to five times higher than schools with less than 10 percent implementation. In the majority of high schools, however, professional development was (and is) characterized by a one-time presentation without follow-up or implementation support. As a result, the process proved ineffective and frustrating to educators, who were left with only general ideas about how to improve teaching practices to achieve the objectives of disparate school reforms.



Key Findings About Professional Learning in the United States

- Intensive professional development for an average of forty-nine hours a year boosted student achievement by approximately 21 percentile points. A limited amount of professional development—ranging from five to fourteen hours total—showed no statistically significant effect on student learning.
- Fewer than one-quarter of teachers (23 percent) reported that they had received at least thirty-three hours (more than four days) of professional development on the content of the subject they taught. More than nine out of ten U.S. teachers have participated in professional learning consisting primarily of short-term conferences or workshops.
- American teachers spend much more time teaching students and have significantly less time to plan and learn together and to develop high-quality curriculum and instruction than teachers in other nations. U.S. teachers spend about 80 percent of their total working time engaged in classroom instruction, compared to about 60 percent for these other nations' teachers.

[Learning Forward](#) has published the following reports on professional learning in the United States:

- [Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad](#) provides research findings on effective professional learning and the availability of professional development opportunities for teachers in the United States and internationally.
- [Professional Development in the United States: Trends and Challenges](#) evaluates the progress of professional development efforts in the United States over the last decade.
- [Teacher Professional Learning in the United States: Case Studies of State Policies and Strategies](#) examines the policies that support local professional development practices in four “high-performing” states.
- [Learning Forward's Standards for Professional Learning](#) outlines the characteristics of professional learning that increases educator effectiveness and results for all students.

Overall, the quality of professional development has failed to keep pace with the enormous changes in the student population and the diversity of their learning needs. Between 1980 and 2009, the number of English language learners (ELLs) more than doubled, from 4.7 million (10 percent) to 11.2 million (21 percent).⁵⁰ According to *The MetLife Survey of the American Teacher: Past, Present and Future*, almost half of secondary school teachers say that students' learning abilities have become so mixed in their classrooms that they cannot teach effectively.⁵¹ Data from multiple sources show an overall pattern of poorly designed and implemented professional improvement practices even in states where policies on staff development exist. In 2004, more than 60 percent of U.S. teachers responding to the SASS reported that they had not even had one day of training in supporting the learning of special education or ELLs during the previous three years.⁵² The 2008 SASS data showed a further decline in the percentage of teachers receiving more than eight hours on teaching ELLs during the last three years—from 36 percent in 2004 to 20 percent in 2008.⁵³

The good news is that multiple initiatives are now under way to develop professional standards for what accomplished teaching looks like and to shape strategies to address the developmental needs of teachers throughout their career. The New Teacher Center (NTC), a national nonprofit organization headquartered in Santa Cruz, California, is one such example. It has established a well-designed, evidence-based induction model to increase teacher retention, improve classroom effectiveness, and advance student learning. The NTC teacher induction program—implemented in over forty states and U.S. territories—provides multi-year, structured mentoring and intensive professional development differentiated to meet beginning teachers' needs.



What's Working: New Teacher Center

By David Osta, Associate Director, Policy, New Teacher Center

The New Teacher Center (NTC) is an example of an organization that is scaling effective induction and mentoring for new teachers based on professional standards for what accomplished teaching looks like. Since 1998, this national nonprofit organization has partnered with schools, districts, and policymakers to develop and deliver induction and mentoring that accelerate new teacher effectiveness. The NTC's work is particularly important in hard-to-staff schools that serve low-income and minority students, where teacher turnover tends to be more prevalent and a disproportionately high percentage of new teachers are often employed.

As the organization's *2011 Review of State Policies on Teacher Induction* shows, most state policies lack a strong commitment to high-quality induction and mentoring.^a Too few state policies envision teacher induction as part of a system of teacher development, establish quality program standards, help identify and train effective mentors, or generally offer districts the guidance and resources to provide meaningful new teacher support.

NTC leaders recognize that new teacher induction has the greatest impact when it is thoughtfully integrated into a broader vision of how schools, districts, and states define, measure, and improve the performance of all teachers. The NTC works with its district and state partners to move beyond focusing only on evaluating teaching performance to provide systemic opportunities for new teachers to develop teaching practice and continuously improve. Unfortunately, while states and districts are demanding more accountability from educators, they are simultaneously reducing or eliminating dedicated appropriations for new teacher induction and suspending programs entirely.

New Teacher Center

Last year, the NTC developed and supported 7,534 accomplished educators to mentor new teachers, reaching 24,195 new teachers, 3,516 school administrators, and nearly two million students across the country. As a result, each of these students had a more effective teacher, capable of improving achievement and inspiring success.

Comprehensive, high-quality, mentor-based teacher induction includes

- multi-year assistance for at least two years, with multi-support design;
- carefully selected, well-prepared, and systematically supported mentors who focus on instruction and student learning;
- ongoing formative assessment of the teacher's practice to guide learning experiences and professional goal setting;
- sanctioned time for targeted professional development activities, and for mentors and beginning teachers to work together, observe practice, and analyze student learning data;
- engaged principals who know how to create conditions that support teacher development;
- program leadership collaboratively shared among all stakeholders, including district administration and union/association leaders; and
- strong alignment with other district goals that support teacher learning (i.e., evaluation, tenure, professional learning communities).

The NTC strives to integrate induction into a systemic approach to teacher development. While focused on making new teachers better faster, the organization's leaders recognize that efforts to improve new teacher induction, and teacher effectiveness generally, must address other related and important school and district context factors. Inducting new teachers into a weak professional community will ultimately limit the impact of high-quality induction. School leadership, teaching conditions including opportunities for teacher leadership and collaboration, customized development opportunities, and teaching policy all greatly impact new teachers' chances of success and the induction programs designed to accelerate their development.

^aL. Goldrick et al., *2011 Review of State Policies on Teacher Induction* (Santa Cruz, CA: New Teacher Center, 2011).

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The NTC’s approach to new teacher induction includes a focus on developing school leadership.

Engaged school leaders are a critical component of effective induction programs. Principals are responsible for leading the creation of supportive working conditions and have a lead role in teacher development, evaluation, and school improvement broadly. For this reason, the NTC partners with districts to provide job-embedded executive coaching and professional development for school leaders. The professional development is designed to support instructional leadership in general and build a strong connection between new teacher induction and school and district goals.

Specifically, the NTC supports principals in identifying the developmental needs of new teachers and determining effective strategies to help new teachers thrive, not just survive. Additionally, the organization helps school leaders address specific issues and challenges faced by new teachers and analyze school culture for norms and practices that impact new teachers.

Based on its success with new teachers and its systemic approach, the NTC also works with new principals to accelerate their development as school leaders. Through professional development and coaching, NTC works with new school administrators to quickly build their leadership capacity to improve teacher development and overall student achievement.

The NTC’s Work with School Leaders in Action

In 2010–11, the NTC and the Chicago Public Schools (CPS) Office of Leadership Development and Support partnered to launch the Principal Induction Network. To help the growing number of new principals in CPS become more effective faster, the NTC pairs new principals with rigorously selected and trained principal coaches who provide them with intensive on-the-job coaching and training. The NTC has also led new teacher induction and mentoring in CPS since 2006.

The Principal Induction Network takes into account changes in the principal’s role. School leaders were once primarily concerned with managing operations and staff, but now are required to create effective working conditions, drive instructional change, perform data-driven analysis of student achievement, and actively engage with the community. Training and support focuses on the shift from operations/management to data-driven analysis of student achievement; the alignment of goals, supports, and supervision of principals; and the enhancement of the professional capacity of experienced school leaders.

The NTC’s approach also includes a focus on creating positive schoolwork environments.

Research shows that a school’s teaching and learning conditions have a powerful influence on student achievement, teacher retention, and teacher efficacy and motivation. A supportive professional working environment is critical to maximizing teaching effectiveness. New teachers, who disproportionately work in low-achieving schools, especially need supportive working conditions. All teachers perform better in schools with supportive leadership, where they are valued and trusted, and where they have sufficient time and resources. These teaching and learning conditions also include robust instructional supports and participation in ongoing professional learning opportunities.

The NTC’s Teaching and Learning Conditions Initiative, also known as Teaching, Empowering, Leading, and Learning (TELL), is focused on collecting perceptions of teachers, principals, and other licensed educators about the presence of supportive teaching conditions—including induction, school leadership, empowerment, resources, and time. During the 2010–11 school year, the NTC surveyed educators in Colorado; Kentucky; Maryland; Tennessee; Austin, Texas; Oakland, California; and elsewhere.

TELL surveys also can serve as one of multiple measures to evaluate the effectiveness of principals. As discussed above, induction and mentoring programs are most successful in schools with leaders who actively participate in the induction process and sanction time for new teachers and mentors to work together. Surveys of teaching and learning conditions can be used to inform school improvement plans and to hold local school and district leaders accountable for ensuring positive teaching and learning conditions.

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The NTC's Teaching and Learning Conditions Initiative Work in Action

The results of the 2011 [TELL Tennessee](#) survey are being studied and analyzed to improve working and learning conditions to recruit, retain, and develop effective teachers across Tennessee. The data may prove particularly helpful for school improvement planning. The survey—a project of the state's Race to the Top initiative—had a statewide response rate of 77 percent. [Results](#) show that 85 percent of Tennessee educators believe that their school is a good place to work and learn. In a [news release](#), Go. Bill Haslam said, "It is critical that we remain engaged and connected to work jointly towards the improvement and success of our teachers, classrooms, and student achievement." Education Commissioner Kevin Huffman said, "These results will help us to better understand the things that work, but also help to identify areas that need improvement such as developing more individualized professional development opportunities." A follow-up survey is scheduled for 2013.

The NTC's approach also includes a focus on advocating for policies that support the development of high-quality induction and mentoring in school districts.

Strong, comprehensive state policies increase the likelihood that high-quality local induction will take root in schools and districts. Specifically, state policies can provide school districts guidance, support, and accountability for the implementation and impact of a comprehensive high-quality induction.

In 2006, the NTC [formalized](#) its role as a resource for policymakers seeking assistance with and information about how to make comprehensive, high-quality induction programs part of building a strong educator workforce. The NTC has been called on to inform state and federal legislation and program development and implementation. It has also worked in more than thirty states and consulted with state education officials—including recent work in Illinois, North Carolina, Ohio, and Oregon—to craft state policies, build statewide program infrastructure, develop induction program standards, and design and deliver training for mentors and program leaders.

The NTC's policy team advocates for new teacher induction and consults with policymakers to define standards and develop the infrastructure required for the implementation and evaluation of the high-quality induction programs. The NTC's *Review of State Policies on Teacher Induction* shows that in 2010–11, twenty-seven states required some form of new teacher induction or mentoring.

However, among those states that have made an initial step to mandate induction, too many do not include other key policy levers like adequate (or any) funding, strong program standards, or mentor training. For example, in 2010–11 only three states required induction for two years, provided funding, and connected induction to licensure. Simply requiring that new teachers be assigned a mentor without regard to mentor or program quality will not accelerate new teacher development, reduce teacher attrition, or significantly impact student learning.

The NTC's Policy Work in Action

In 2007, Stand for Children and the [Chalkboard Project](#) drew upon NTC policy and program expertise to advocate for and pass legislation that created the Oregon Beginning Teacher and Administrator Mentoring program. The funding has resulted in the development of a strong network of induction programs in Oregon. The NTC continues to be active in the state, including co-facilitating the Oregon induction program leader network. In his 2011–13 biennial budget, Oregon Governor John Kitzhaber proposed (and the Oregon state legislature ultimately approved) maintaining funding for the state's [Beginning Teacher and Administrator Mentor Program](#) at \$3.89 million. While other states are cutting or eliminating funding that supports new teachers, Oregon stands out for sustaining the state's commitment to this important work.

Conclusion

The NTC works with partners to integrate induction into a broader framework for defining, measuring, and improving teaching effectiveness. It works with its district and state partners to move beyond only evaluating teaching performance to providing systemic opportunities for new teachers to develop teaching practice and continuously improve. As a key to its success, the NTC addresses important related school and district factors—school leadership, teaching and learning conditions, and teaching policy—which have an important bearing on teaching effectiveness efforts broadly, and specifically on the induction programs designed to accelerate new teacher development.



Systems Approach to Teacher Development

More than ever, teacher development must be situated in a thoughtfully integrated framework of standards, instruction, and assessments that clarifies the expectations for what students learn and do. High-performing countries such as Canada and Finland have adopted the practice of focusing on a leaner set of “big ideas”—developed sequentially over time to deepen students’ understanding of central concepts within a discipline. For example, in mathematics, secondary students need to understand operations with rational numbers and solve them with linear equations; in science, they need to demonstrate their understanding that all earth processes are the result of energy flowing and mass cycling within and between earth’s systems. In turn, high-quality teaching focuses on actively engaging students in these kinds of discipline-specific understandings rather than imparting a collection of isolated abilities and bits of information.

The new common core state standards will attenuate some of the unevenness in teaching practice by clearly defining the competencies all students need for college and career success. The standards’ design calls for new ways of teaching that are consistent with how students learn and advance toward greater competency and subject mastery. The standards will provide teachers with clearer benchmarks to assess students’ progress and a better grasp of the pedagogical practices needed to move the learner to the next level. Just as important, the concurrent development of high-quality, common assessments must signal the deeper learning and high-level performances teachers want to elicit from their students to ensure their readiness for the postsecondary world.

Nevertheless, improving standards and assessments, while necessary to strengthen the foundations of education in this country, are insufficient in themselves to address long-standing inequities in the quality of education. Michael Fullan, dean of the Ontario Institute for Studies in Education at the University of Toronto, writes, “Higher, clearer standards, combined with correlated assessments, are essential along the way, but they are not going to drive the system forward. Whole system success requires the commitment that comes from intrinsic motivation and improved technical competencies of groups of educators working together purposefully and relentlessly.”⁵⁴

Over the past forty years, top-performing Korea, Finland, Hong Kong, Singapore, and Canada have integrated mutually reinforcing elements of teacher support as part of a coherent strategy to elevate the teaching profession and significantly improve instructional practice.⁵⁵ These systems commit to developing the best talent needed to teach all students the rigorous content and higher-order cognitive skills demanded in a knowledge economy. To make skilled teaching practice transparent and shared across the profession, high-performing education systems employ social capital and infuse expertise through collaborative structures within and across schools.

Nations that have successfully accelerated the improvement of learning outcomes, particularly for the lowest-achieving students, enable teachers to become top-notch instructors by engaging in ongoing opportunities to develop strong content knowledge and the instructional techniques that are appropriate for the subjects they teach. Significant improvement has resulted from changing not just the content and pedagogical approaches, but how teachers think about teaching.

Singapore consistently scores in the top rankings in mathematics and science on the OECD Programme for International Student Assessment (PISA) and the Trends in International Math and Science Survey (TIMSS), even though less than half of the nation’s students speak English, the language of the test, at home.⁵⁶ The nation boasts one of the most coherent systems for attracting talented recruits, preparing



them well, and offering ongoing development and career options for teachers to teach and lead. During the induction period, a teacher's course load is reduced by 80 percent to provide more time for planning, peer observation, and mentoring as part of an inquiry culture among teachers. This induction experience is further enriched by extensive collegial support to develop their abilities to teach a curriculum focused on critical thinking, problem-based learning, use of technology, and collaboration.

In addition to providing financial incentives such as salary supplements, bonuses, and scholarships to keep teachers in hard-to-staff schools, Japan and the People's Republic of China focus on creating the professional work environment needed to attract and retain higher-caliber recruits. They establish mechanisms to make practice transparent and teachers responsible to each other as professionals for both their own performance and that of their colleagues.⁵⁷

Hong Kong approached reform by turning teaching into a high-status expert profession through intelligent incentive and selection structures for entry into teaching anchored in a "teacher-competency framework."⁵⁸ Hong Kong articulates the cognitive skills, a deep knowledge base, intellectual aptitude, and dispositions needed by entering teachers to teach all students higher-order skills and content. Teachers work in environments where they have the discretion, based on expert knowledge, to diagnose individual student needs and determine interventions and services. "Initially government mandates must be necessary, but Hong Kong government believes that in order to 'unleash greatness' in schools, they must be granted the autonomy to create their own educational plans to meet diverse student needs and to create a school culture of learning and professionalism."⁵⁹

Global Perspective on Developing a High-Quality Teaching Profession

A number of reports take a close look at the lessons learned from high-performing and rapidly improving systems on their approaches to developing a high-quality teaching profession. For more information, see

[*Building a High-Quality Teaching Profession: Lessons from Around the World*](#), published by the Organisation for Economic Co-operation and Development (OECD). Provides background material drawing from international research and frames the discussion for the International Summit on the Teaching Profession in New York City convened by the U.S. Department of Education, OECD, and Education International on March 16–17, 2011.^a

[*Improving Teacher Quality Around the World: The International Summit on the Teaching Profession*](#), published by the Asia Society Partnership for Global Learning. Captures the main issues that emerged during the discussions at the International Summit on the Teaching Profession.^b

[*How the World's Most Improved Systems Keep Getting Better*](#), published by McKinsey and Company. Examines the policies and practices used to shape the teaching profession and improve academic achievement in twenty of the world's school systems, including the top ten performers.^c

^a A. Schleicher, *Building a High-Quality Teaching Profession: Lessons from Around the World* (Paris, France: Organisation for Economic Co-operation and Development, 2011).

^b Asia Society Partnership for Global Learning, *Improving Teacher Equality Around the World: The International Summit on the Teaching Profession* (New York, NY: Author, 2011).

^c M. Mourshed, C. Chijioke, and M. Barber, *How the World's Most Improved School Systems Keep Getting Better* (London: McKinsey and Company, November 2010).

Ultimately, these national high achievers produced significant improvement in academic gains, particularly with the lowest performers, by shifting the focus from *what is taught*—largely as a private matter behind closed doors—to *what students learn*. As a result, these advanced nations enjoy both high levels of educational attainment and reduced disparities in educational outcomes. In contrast, according to the most recent PISA results, the United States has fallen steadily from one of the top-performing systems in the world to its current ranking of seventeenth, thirty-first, and twenty-third in reading,



mathematics, and science, respectively.⁶⁰ The PISA survey shows that the United States also fares poorly on barometers of educational equity—that is, the degree to which economic status predicts student achievement. Studies measuring the impact of family background on international assessments show that the United States ranks in the top quarter of the most unequal countries based on the performance gaps for students from different social and economic backgrounds.⁶¹

New models of teacher development are needed that seriously address the practical challenges of educating *all* students to higher levels of achievement. McKinsey and Company studied twenty educational systems (countries or subregions of countries) in various stages of development and performance.⁶² They chronicled the dominant clusters of interventions—categorized into ten broad areas such as professional development, accountability, and revising curriculum and standards—and mapped each system with its interventions against the various stages of improvement. The report finds that one-third of the systems in the “good to great” journey and about two-thirds of the systems in the “great to excellent” journey focus on school autonomy and highly skilled educators as the core drivers for raising performance. In the highest-performing systems, the prevailing pattern of interventions focused on “teacher support” by substituting approaches that foster peer support and accountability through collaborative practice in place of mechanisms for formal accountability measures such as teacher appraisals or requalification.⁶³ As with other professions—such as medicine and engineering—policies and practices have been carefully structured to cement the connections between standards for competent performance and systems for developing and supporting teachers within a collegial culture.

The press to improve the levels of student attainment and reduce achievement gaps affords an enormous opportunity to work toward a shared conception of good teaching, establish points of focus for training and support, and align systems of assessing practice and providing feedback to develop teacher effectiveness throughout the career. The nation needs a more organized, rational approach to teacher development—grounded in rigorous standards of practice and strong clinical preparation.

One high-leverage policy tool for widespread enhancement of the consistency and effectiveness of teachers is developing a practical set of standards and performance assessments. Research shows that rigorous, validated standards-based performance measures can be a powerful instrument for capturing how teaching is enacted in a complex context as well as providing feedback for continuous improvement. Performance assessments like those used for National Board Certification are administered as part of teacher licensure in states such as California and Connecticut to improve the practice of individual teachers and leverage continuous improvement in programs for preparation, induction, and professional development. These measures can illuminate the most critical and challenging aspects of accomplished teaching that are traditionally underdeveloped: engaging and supporting diverse learners, assessing their knowledge and skill development, having multiple and appropriate strategies, and providing specific feedback in response to students’ learning. For example, Connecticut has implemented a performance assessment for novice teachers following the induction period as a basis for moving from a probationary to a professional license. This highly structured process requires teachers to submit evidence of their practice and its outcomes, based on lesson plans with adaptations for special education students and English language learners, and analyses of assessments and student work.

Over the last two decades, validity studies have shown that well-designed teacher performance measures can differentiate between effective and ineffective teachers and significantly predict their students’ “value-added” achievement gains on state tests—estimates of the relative contribution of specific teachers to student test performance. For example, studies found that a one-unit increase in Connecticut



teachers' portfolio scores was associated with a 50 percent increase in students' gains on state reading tests during the course of a school year.⁶⁴ Beginning teachers and mentors report positive impacts on their practice as they become clearer about what good teaching is and how to develop it.

Progress is now under way to achieve a system of reliable, valid, and nationally available performance assessments. Twenty-one states have joined the American Association of Colleges for Teacher Education and Stanford University to create the Teacher Performance Assessment (TPA), a common initial licensing assessment that can be used nationwide to ensure that preparation and licensing are based on performance. When connected to gateway performances for licensure and advancement, the data from these assessments can shape who enters and remains in teaching, determine who should be recognized as expert for purposes of compensation as well as selection as mentors and coaches for their colleagues, increase license portability across states, and ensure that teaching talent is equitably distributed.⁶⁵

Teacher Performance Assessment Consortium

The Teacher Performance Assessment (TPA) Consortium, consisting of teams made up of representatives from twenty-one state education agencies and more than eighty teacher preparation institutions, launched a three-year pilot and field test of the TPA. The core of the assessment is the Teaching Event, a documentation of three to five days of teaching and learning in a subject-specific area. Teachers assemble evidence in response to very specific tasks and prompts that provide data about critical aspects of teaching such as supporting student understanding within a discipline, assessment literacy, and adapting instruction for English language learners and students with special needs. Portfolio artifacts include lesson plans, videos of instruction, and analyses of assessments and student work. Candidates must submit written commentary about their knowledge of content and individual learners and how it informs their decisions about sequencing learning tasks and selecting instructional strategies.

The performance measures will be validated using value-added analyses, observations and interviews of candidates completing the assessment and the first year of teaching, and interviews with faculty and program administrators on the use of assessment data for program improvement. A technology platform has been designed to support scorer training and calibration and to house a database on teacher performance. A set of accelerated states—Illinois, Minnesota, Ohio, Washington, and Tennessee—are on a fast track to implement the TPA; Washington and Minnesota have committed to full-scale implementation of the TPA beginning in fall 2012. These and other participating states are exploring policy options that would incorporate the use of the TPA depending on the results of the pilot. For more information, see [Transforming High Schools: Performance Systems for Powerful Teaching](#).

Policy Recommendations

Richard Elmore, Gregory R. Anrig Professor of Educational Leadership at Harvard University, and Susan Fuhrman, president of Teachers College, Columbia University, wrote more than a decade ago, “As equality of opportunity comes to rest more squarely on the need for quality instruction, issues of how to enhance the professional competence of educators become more important. To ensure equal opportunity in today’s context means enhancing, not limiting, the professional nature of teaching, and for that task state policy as it has been conceived in the past is hardly the best instrument We need new ways of conceiving the state role and the strategies at the state disposal.”⁶⁶

Serious and systematic efforts are needed to develop a set of policies to shape professional norms and practices across schools and districts as part of a coherent system. Meeting the expectation that all students will learn to high standards requires a sea change in how states and districts attract, prepare, support, and develop teachers who can teach in more powerful ways. Despite the decline in revenue, the federal government can play an important role in supporting state educator development systems by



prioritizing initiatives in grant programs and appropriations and developing administrative guidance and regulations that support the following recommendations for state action.

- ***Develop coherent systems that encourage high-quality educator development and teaching***, by using performance measures based on validated standards of teaching practice for initial and advanced licensure and program improvement. States should build longitudinal data systems to link teachers and K–12 student learning outcomes with key aspects of programs to prepare, induct, and support effective educators. States and districts should be responsible for increasing the number/percentage and equitable distribution of highly effective educators.
- ***Create accountability for preparation programs*** based on valid measures of candidates’ teaching performance, program graduates’ persistence rates and effectiveness in K–12 teaching, and feedback surveys from graduates and their employers. Accountability systems should be streamlined, focused on program outcomes, and applied equally to all teacher preparation programs in the state—whether traditional or alternative—with consequences for persistent low performance.
- ***Require comprehensive induction programs for new teachers*** following entry-level licensure, extending for a minimum of two years. Successful completion of a high-quality induction program that provides embedded coaching and feedback by well-trained mentors should be a requirement for professional licensure.
- ***Require regular evaluations of teachers using multiple measures*** based on clear standards for effective practice, measures of student achievement growth, and other measures such as observations, video records of teaching, analyses of student learning, and lesson plans or other artifacts of practice. States and districts will need to determine the performance indicators that can reliably assess teacher competency and provide feedback to support professional learning.
- ***Support staff selection and professional growth systems that foster collegial collaboration*** in pursuit of high-impact, evidence-based practices consistent with state and district learning goals. High-performing districts should communicate core expectations for professional practice, invest in adult learning, and create the organizational conditions conducive to meaningful staff collaboration and development.

Conclusion

Much more must be done to shape a world-class teaching profession. Reducing attrition rates and improving the consistency and quality of teaching in high schools will require bridging a number of divides between what is taught and what is assessed, between teacher preparation and the challenges and expectations for secondary teaching, and between the way schools are currently organized and the conditions needed to foster collaboration and continuous improvement. Moreover, coherent policies that tackle the dual problems of inadequate and unequally distributed teaching talent are essential to reverse the broad inequities in educational opportunity and outcomes for students based on race, income, and geography.

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