NATIONAL COMPREHENSIVE CENTER FOR TEACHER QUALITY

AMERICA'S OPPORTUNITY:
TEACHER EFFECTIVENESS AND EQUITY IN K–12 CLASSROOMS

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Laura Goe, Ph.D., Editor

National Comprehensive Center for Teacher Quality (TQ Center) Advisory Groups

To help ensure its relevance to current policy concerns, regional and state data, and technical assistance needs, the TQ Center's work is guided by three groups of advisors: the Advisory Board, the Communication Coordination Council, and the Higher Education Council. Their expertise is vital to the success of the TQ Center's mission.

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The Advisory Board consists of distinguished researchers and professionals in K–12 education. This group oversees the TQ Center's work at all levels.

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NATIONAL COMPREHENSIVE CENTER FOR TEACHER QUALITY

Building Capacity to Increase Teacher Effectiveness and Equity

INTRODUCTION




Introduction: Building Capacity to Increase Teacher Effectiveness and Equity

Sabrina W. M. Laine, Ph.D., *Learning Point Associates*

SYSTEM OF SUPPORT

For decades, policymakers, parents, education leaders, and concerned citizens have lamented the fact that the quality of teachers in American schools varies dramatically, with schools in high-poverty areas significantly less likely to employ qualified, experienced, and effective teaching staff. Despite years of attention to this topic and the public discussions and resulting panoply of policy responses, states are still struggling to ensure that every teacher is fully qualified and that every school has its fair share of the best teachers.

The National Comprehensive Center for Teacher Quality (TQ Center) was created nearly five years ago with the goal of building state capacity to address those issues. In close collaboration with the regional comprehensive centers (RCCs) funded through the U.S. Department of Education, the TQ Center has worked to focus state and national efforts on research-based strategies and practices that promote effective teaching and leadership in our nation's schools—specifically in schools, and on behalf of students, with the most significant disadvantages.

In its 2005 redesign of the earlier Comprehensive Regional Assistance Centers Program, the U.S. Department of Education established five national content centers to serve as the development and dissemination arm for the 16 RCCs focused on building capacity in the state education agencies (SEAs) to carry out the key priorities of the Elementary and Secondary Education Act (ESEA), as reauthorized by the No Child Left Behind (NCLB) Act. Ensuring that all students—regardless of their address, race, native language, or ability—have access to the best teachers is a key tenet of the current provisions of ESEA. Nevertheless, states typically have not taken on shared leadership for what traditionally has been viewed as a local district responsibility: the recruitment and retention of teaching talent.

In an effort to address these issues, the TQ Center, in collaboration with the RCCs, embarked on a five-year scope of work to facilitate a comprehensive review of existing state policy, initiatives, and data on the quality and distribution of teachers. Similarly, the TQ Center's responsibility for meeting the last of its four goals—to galvanize public and policymaker attention and support for meeting the demand for a high-quality teaching force—continues to grow in importance, as national and state reform priorities remain focused on this goal year after year.

THE EVOLUTION OF FEDERAL AND STATE TEACHER POLICY

As the research community continued to find more reliable and statistically significant connections between student achievement and the quality of the classroom teacher (Goe, 2007; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004), the federal government took unprecedented steps through the current provisions of ESEA to monitor state and local efforts to address the quality and distribution of teacher talent. For the first time, the law's highly qualified teacher (HQT) provisions required states to report annually on the number of actively employed teachers holding at least a bachelor's degree, full state certification, and demonstration of content-area mastery for the core academic subjects taught. In addition, the U.S. Department of Education established rules requiring that all states meet this requirement no later than the end of the 2005–06 school year. The focus on teacher quality was further reinforced through the 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA), which

THE TQ CENTER'S ROLE WITHIN THE COMPREHENSIVE CENTERS PROGRAM

System of Support

The TQ Center is part of a technical assistance and dissemination network system of support that is funded by the U.S. Department of Education.

National Content Centers

The TQ Center is one of five national content centers that provide technical assistance to RCCs in conjunction with their work with state departments of education and related agencies.

Regional Comprehensive Centers

The TQ Center provides technical assistance for 16 RCCs.

Alaska Comprehensive Center
http://www.alaskacc.org/

Appalachia Regional Comprehensive Center
http://www.arcc.edvantia.org/

California Comprehensive Center
http://www.cacompcenter.org/

Florida and the Islands Regional Comprehensive Center
http://www.ets.org/flicc/

Great Lakes East Comprehensive Center
http://www.learningpt.org/greatlakeseast/

Great Lakes West Comprehensive Center
http://www.learningpt.org/greatlakeswest/

Mid-Atlantic Comprehensive Center
http://macc.ceee.gwu.edu/

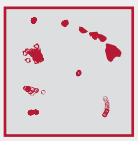
Mid-Continent Comprehensive Center
http://www.mc3edsupport.org/

New England Comprehensive Center
http://www.necomprehensivecenter.org/

New York Comprehensive Center
http://www.nycomprehensivecenter.org/

North Central Comprehensive Center
http://www.mcrel.org/nccc/

Northwest Regional Comprehensive Center
http://www.nwrel.org/nwrcc/



Pacific Comprehensive Center
http://www.pacificcompcenter.org/

Southeast Comprehensive Center
http://secc.sedl.org/

Southwest Comprehensive Center
http://www.swcompcenter.org

Texas Comprehensive Center
http://txcc.sedl.org/

solidified the requirement that all special education teachers responsible for delivering instruction in any core content area must meet HQT provisions, as defined in ESEA, and mandated that they be fully certified to teach special education.

As states and local districts began to show some progress in accessing information about teacher credentials and building data systems to support these new reporting requirements, the U.S. Department of Education started to place additional emphasis on another component of the law, which requires states to develop "equitable distribution plans" as part of their state HQT plans. The equitable distribution component of the HQT plan was intended to require state policymakers to take steps to ensure that students from low-income families and minority students are not taught by inexperienced, unqualified, or out-of-field teachers at higher rates than other students. States took various approaches to meet these requirements—from sustained efforts to improve the collection and direct application of new data on teachers for influencing state-level policy investments to isolated and incremental initiatives designed to do no more than meet the letter of the law.

The increased federal and state role in the improvement of teacher quality has led to multiple efforts to enhance the quality of the teaching force at the local level. Although the accuracy of the data being reported to the U.S. Department of Education by the states is typically the main area of focus during monitoring visits, the TQ Center tracks the individual monitoring reports issued by the U.S. Department of Education on the progress that states are making toward the implementation of their HQT state plans and highlights a range of lessons learned (National Comprehensive Center for Teacher Quality, 2009). Through the current ESEA Title II, Part A reporting requirements, the U.S. Department of Education also collects and reports on state progress in meeting the 100 percent HQT goal. When the data were first collected in 2003–04, 87 percent of classes were reported by the states to be taught by HQTs; by 2007–08, that number had increased to 95 percent (U.S. Department of Education, 2009). Although still shy of the 100 percent target, the federal data collection efforts have contributed to substantial progress. Most notably, the number of teachers on waivers and renewable emergency certification has declined significantly; when emergency certified teachers do appear on the rolls, they now tend to be aligned with ESEA-approved alternative route provisions.

Boyd, Lankford, Loeb, Rockoff, and Wyckoff (2008) documented the impact of an increase in the quality of teacher credentials at the local level in New York City and found that the gap between the qualifications of teachers in high-poverty and low-poverty schools has narrowed substantially since 2000. The authors posit that this progress was a result of changes in the characteristics of newly hired teachers and the virtual elimination of newly hired uncertified teachers. The improvement in teacher qualifications, especially in the highest poverty schools, coincides with an increase in student achievement during that same period (Boyd et al., 2008).

Regardless of how the impact data are collected and reported, the HQT requirements specified in the current provisions of ESEA forced all states to implement systems to collect and report teacher data. According to the 2008 *Quality Counts* report on the teaching profession, 46 states now assign unique identification numbers to all teachers (Editorial Projects in Education, 2008). Although many states still have significant challenges to overcome in modifying data systems to reliably connect students and teachers for the purpose of improving teaching and learning, initial steps have been taken, and careful nurturing of these new state data systems through federally funded incentive programs will result in long-term improvements

by states in support of the teacher workforce.

MOVING FROM "HIGHLY QUALIFIED" TO "HIGHLY EFFECTIVE"

Debate over the utility of the HQT data, given that they focus exclusively on teacher credentials as opposed to evidence of effective classroom instruction, surfaced almost as soon as the current provisions of ESEA were implemented. Calls from every advocacy organization concerned with improvements in teacher quality (e.g., Berry, 2007; The Commission on No Child Left Behind, 2007) recommended raising the bar in the next round of ESEA reauthorization from what currently constitutes a "highly qualified" teacher based solely on inputs or teacher credentials to a focus on effective classroom instruction as measured by outputs or teacher performance. Despite broad general agreement on the need to move toward a measure of teacher effectiveness, however, few proposals included recommendations on how to define or measure teacher effectiveness.

In response to states requesting guidance on how to proactively plan for this shift, the TQ Center introduced several resources intended to inform state policy conversations and build state capacity in collaboration with RCCs to expand their existing data collection and reporting efforts. For example, the TQ Center's *Communication Framework for Measuring Teacher Quality and Effectiveness: Bringing Coherence to the Conversation* (Coggshall, 2007) and *A Practical Guide to Evaluating Teacher Effectiveness* (Little, Goe, & Bell, 2009) are intended to assist states in a proactive approach to the next wave of federally funded reform efforts targeted at improvements in educator quality.

Although the Obama administration's guidance to states on how to measure and report on teacher effectiveness is still under development, initial direction came from Education Secretary Arne Duncan. A letter addressed to the governors in April 2009 included an early indication of how states would be held accountable for meeting the teacher effectiveness and equitable distribution goal of the American Recovery and Reinvestment Act (ARRA). Specifically, the letter provided examples of the types of data that might be requested: "the number and percent of teachers and principals rated at each performance level in each local educational agency's (LEA's) evaluation system" and "the number and percent of LEA teacher and principal evaluations systems that require evidence of student achievement outcomes" (Duncan, 2009, p. 3). These examples indicate that the Obama administration will continue to intently focus on the quality of educators in schools and districts and that states will continue to have a role in supporting increased effectiveness and access on behalf of all students living within their state borders.

MAKING CONNECTIONS ACROSS THE EDUCATOR CAREER CONTINUUM

Applying a comprehensive framework that details the evidence base for each component of effective educator quality policymaking—from recruitment and hiring to induction and professional development to working conditions and compensation—can facilitate the creation of a more systemic approach to educator talent management and development.

No single reform effort, program, or initiative—whether it focuses on the preparation, recruitment, early support, or compensation of educators—can address the unique challenges faced by the 3.8 million full-time elementary and secondary school teachers (public and private) currently working in classrooms in the United States (National Center for Education Statistics, 2009). Taking a cue from the business world, where a focus on effective human capital management is characteristic of competitive organizations that ensure the best and brightest are recruited and retained,

systemic educator talent management and development is a way to incorporate the whole continuum of teacher quality policies in an integrated, purposeful, and holistic approach (see Figure I.1).

Historically, school districts have not connected the various components of the educator career continuum. For example, compensation decisions typically are made in isolation of evaluation data, which in turn are infrequently tied to teachers' opportunities to access professional development (Weisberg, Sexton, Mulhern, & Keeling, 2009). Furthermore, states most often are disconnected from the local stewardship that districts have over human resources functions. However, as illustrated in Figure I.2, states have taken on greater responsibility for improvements in the overall teaching force. This situation is due, in part, to increased federal scrutiny as well as the growth in "education governors," who frequently make education reform a priority.

Given their growing involvement in the development of policies and programs to improve educator quality, states struggle to develop reforms to address the whole spectrum of issues that influence educator effectiveness in the classroom. Reform efforts are frequently incremental or disconnected from one another and, in some cases, work against one another. In response to this issue, the TQ Center developed a state policy inventory data collection process to facilitate conversations among state-level policy groups to identify priorities based on existing gaps in knowledge and policy across the educator career continuum (National Comprehensive Center for Teacher Quality, n.d.). In addition, the TQ Center addressed this issue at its 2008 What Works Conference, "Building Capacity for a Systems Approach to Improving Educator Quality" (National Comprehensive Center for Teacher Quality, 2008).

ABOUT THIS REPORT

Educator talent management is the process of managing and developing teacher and school leader talent—across all the stages of the career continuum—to optimize the workforce in an education system. The TQ Center's second Biennial Report, *America's Opportunity: Teacher Effectiveness and Equity in K–12 Classrooms*, has been designed to assist RCCs and SEAs as they move away from piecemeal reform strategies and think systemically about policies and practices that support an effective educator workforce. The following section introduces the main content of this report and illustrates the TQ Center's approach to integrating multiple reform efforts on various

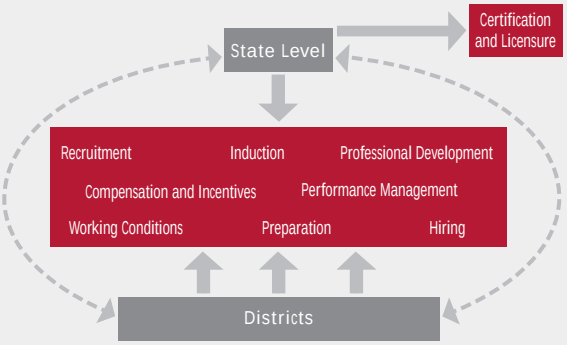
Figure I.1

EDUCATOR TALENT MANAGEMENT COMPONENTS

Source: Behrstock and Meyers (2009, p. 2)

Figure I.2

STATE AND DISTRICT INFLUENCE ON EDUCATOR TALENT MANAGEMENT



Source: Behrstock and Meyers (2009, p. 4)

fronts to ensure long-term improvements in the educator workforce.

Focus of the Report

Questions about whether states play a role in ensuring access to high-quality teaching talent in local communities have ceased. Increasingly, states are encouraging and requiring more robust preparation programs; more efficient human resources departments that identify, recruit, place, and support the most effective educators; and more continuous and focused support for efforts to promote and retain the best and brightest in the profession. *America's Opportunity: Teacher Effectiveness and Equity in K–12 Classrooms* documents the growing recognition among state policymakers of their leadership responsibility to incentivize, support, and monitor local educator quality reforms; their capacity to address these issues more aggressively; and examples of innovative policies and practices that have emerged during the last few years.

Chapter Themes

The chapters in this report are cowritten with colleagues in RCCs and states to illustrate the advances in building state capacity to lead change in reforming the teaching profession.

Chapter 1 describes the changing profile of America's teachers, with a particular focus on generational shifts in the workforce that have implications for future policies to recruit and retain effective educators. The chapter also examines how federal and state policies have responded to the public dissemination of educator supply and distribution data during the last 10 years. Two case studies documenting work in Montana and several Midwestern states served by the Mid-Continent Comprehensive Center illustrate the considerable efforts made in these locales to better understand the current composition, credentials, and experience of their teacher workforce.

Chapter 2 examines multiple interconnected components along the educator career continuum: teacher preparation, new-teacher support, and ongoing professional development. The chapter addresses the changing demographics of the student population, underscoring the need for states to improve preparation programs and provide ongoing teacher support for classroom instruction to meet the diverse needs of today's learners. The authors argue that significant growth in the identification of students with disabilities and higher prevalence of English language learners necessitates changes in how all teachers are prepared and developed throughout their careers, as specialized certificates and endorsements no longer can fill the differentiated instructional requirements in every classroom context. In addition, TQ Center tools and strategies for assisting states with policy shifts related to these demographic changes are introduced, along with a detailed case study documenting a statewide effort spearheaded by the New York Comprehensive Center to bring together key stakeholders to improve the preparation of teachers for culturally and linguistically diverse urban classrooms.

Chapter 3 reviews some of the challenges related to recruitment, hiring, and poor working conditions that states have faced in addressing the equitable distribution mandates in the law. It outlines steps that states can take to address these challenges. In addition, the chapter presents case studies on two states (Delaware and Tennessee) with unique approaches to collecting and acting upon the data they have collected to better understand their teacher distribution challenges

Finally, **Chapter 4** moves the policy conversation away from traditional measures of educator quality to a discussion of how to define, evaluate, and compensate educators based on effective practice. The TQ Center's initial definition of *teacher effectiveness*

is introduced, and a special section of the chapter is devoted to the use of the TQ Center's *Communication Framework for Measuring Teacher Quality and Effectiveness* (Coggshall, 2007). The chapter also describes recent innovations in educator evaluation and compensation, including Ohio's investment in the development of state evaluation guidelines and Utah's early experimentation with developing a statewide pay-for-performance initiative.

The research, policy, and practical resources introduced in this report are testaments to the steady transformation of the teaching profession occurring in states and districts throughout the country. With significant support from the network of RCCs, the TQ Center has been a proud partner to states that are aggressively seeking opportunities to ensure that every student in their geographic borders has access to the most effective teachers and leaders.

Although there is still much to do to build the capacity of states to shape the conditions that support effective teaching and learning, America's opportunity to support teacher effectiveness in every state, district, and school has arrived. It is time that the education community embraces not only the concept of systemic educator talent management and development but also the vision, collaborative spirit, and sustained will to promote meaningful, evidence-based improvements across the educator career continuum.

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NATIONAL COMPREHENSIVE CENTER FOR TEACHER QUALITY

The Changing Profile of America's Teachers: Who Are Our Teachers?

CHAPTER 1

CHAPTER 1 The Changing Profile of America's Teachers: Who Are Our Teachers?

Jane G. Coggshall, Ph.D., and **Amy Potemski,** *Learning Point Associates*

INTRODUCTION

It is by now well-established that teachers account for student achievement more than any other school resource (Goldhaber & Brewer, 1997; Nye, Konstantopolous, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004; Rowan, Correnti, & Miller, 2002). This insight has led to wide-scale accounting of teachers. During the last decade, teachers have been counted, categorized, and scrutinized as never before. State education agencies (SEAs) have labored to track teachers' qualifications, district by district and classroom by classroom. The catalyst for much of this activity is the Elementary and Secondary Education Act (ESEA), as reauthorized by the No Child Left Behind (NCLB) Act, which seeks to ensure that all students are taught by highly qualified teachers (HQTs). ESEA requires states to indicate whether teachers have the requisite certifications, degrees, and test scores to show they are qualified to teach their assigned subjects.

TQ CENTER RESOURCE

The TQ Research & Policy Brief titled *Teacher Quality and Student Achievement: Making the Most of Recent Research* (http://www.tqsource.org/publications/March2008Brief.pdf) explores the associations between teacher quality and student achievement and identifies several teacher quality variables—including specific teacher qualifications, characteristics, and classroom practices—that are strong and consistent predictors of student achievement.

As research has shown, however, teacher qualifications are, at best, weak indicators of teacher effectiveness as measured by student achievement test scores (Goe, 2007; Harris, 2009). This realization has prompted calls to modify teacher accountability systems to include measures beyond teacher certification status, degree level, or licensure test scores. Many SEAs currently are in the process of designing comprehensive data systems that include unique identifiers that can be used to link teachers to the students they teach in order to measure teachers' impact on student achievement directly. Only 13 states had the ability to link teachers to students in 2005. By 2008, 21 states had this ability; and 17 more states plan to acquire this ability by 2012 (Data Quality Campaign, 2008).

This chapter describes the changing profile of America's public school teacher workforce—which is currently about 3,404,500 teachers strong (Coopersmith & Gruber, 2009)—and details some of the forces that may be shaping this profile. It discusses teacher demographics and then tallies the changing status of their qualifications in terms of their backgrounds before and after they enter the profession as well as in relation to teacher distribution. An examination of some of the policies that may have influenced teacher demographics follows. Finally, the chapter identifies enduring challenges and future possibilities for those committed to supporting today's teaching workforce.

The chapter also includes two relevant case studies of the work that the TQ Center has been conducting with regional comprehensive centers (RCCs) and SEAs: a summary of the work with the Montana Department of Public Instruction and the

Northwest Regional Comprehensive Center, and a description of a collaborative effort with the Mid-Continent Comprehensive Center to help its constituent states account for their teaching workforce.

TQ CENTER RESOURCE

The TQ Center research synthesis titled *The Link Between Teacher Quality and Student Outcomes: A Research Synthesis* (http://www.tqsource.org/publications/LinkBetweenTQandStudentOutcomes.pdf) explores the research base of the relationship between teacher quality and student learning. It helps identify which teacher qualifications and characteristics should be prioritized in educating and hiring those teachers who are most likely to have a positive impact on student learning.

CHANGING DEMOGRAPHICS

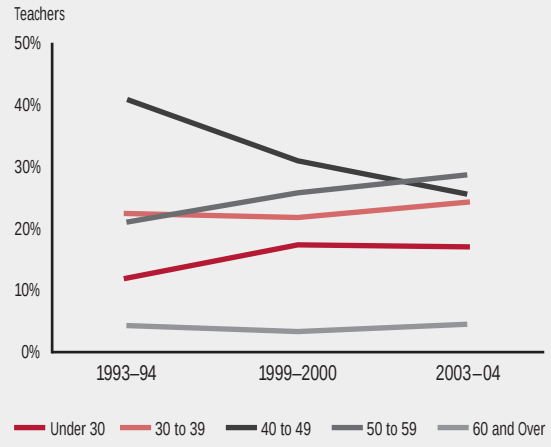
The landscape of the teacher workforce has shifted during the past decade. Patterns of change can be seen in teacher age; gender, race, and ethnicity; qualifications; and the qualification process. These changes may have their origin in educational policy reform, specifically the current provisions of ESEA.

Generational Shift

The distribution of teachers' ages has changed considerably since the early 1990s. According to data from the National Center for Education Statistics (NCES) report titled *The Condition of Education: 2007* (Planty et al., 2007), the percentage of all public and private school teachers under age 30 increased between the 1993–94 and 1999–2000 school years from approximately 12 percent to 18 percent (see Figure 1.1) and has remained fairly steady since that time. The 2007–08 Schools and Staffing Survey (SASS) data show that 18 percent of public school teachers today are under age 30, and the average age of teachers is 42.2 years (Coopersmith & Gruber, 2009). As illustrated in Figure 1.1, the most dramatic shift can be seen in the 40 to 49 age group, for which numbers are declining. In 1993–94, approximately 41 percent of teachers were in their 40s; by 2003–04, that percentage had fallen to just 25 percent, with the largest shift occurring between 1993–94 and 1999–2000.

Figure 1.1

Percentage of Teachers in Both Public and Private Schools



Source: Planty et al. (2007, pp. 184–186)

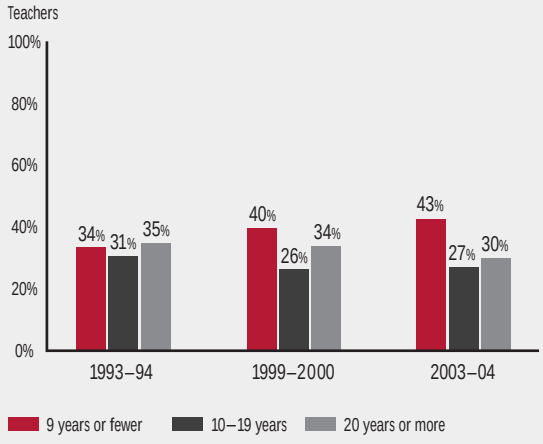
Many states now face a bimodal age distribution in their teaching population. A recent report by the National Commission on Teaching and America's Future (2009) indicates that in 18 states, more than half of the teachers are over age 50, and in 17 states, approximately 45 percent of the teachers are over age 50; the average retirement age for teachers is 59, and it is estimated that one third of these teachers will retire in the next four years. If these trends continue, many states will face unprecedented teacher turnover rates within the next decade.

Paralleling the shift in the age of teachers is a shift in teacher experience levels. During the last 15 years, there has been an increase

in the number of teachers with nine or fewer years of experience coupled with a decrease in the number of teachers with 10 or more years of experience (see Figure 1.2). In 1993–94, 66 percent of teachers had 10 or more years of experience in the classroom; by 2003–04, this number had decreased to 57 percent. According to the most recent data, collected for 2007–08, the number of teachers with 10 or more years of experience in the classroom has decreased to 52 percent; today, approximately 48 percent of public school teachers have less than 10 years of experience (Coopersmith & Gruber, 2009).

Figure 1.2

Years of Experience for All Teachers in Both Public and Private Schools



Source: Planty et al. (2007, pp. 184–186)

In addition, teachers with less than 10 years of experience make up more than 50 percent of teachers working in schools in which more than 75 percent of students are eligible for free or reduced-price lunch (as compared to 46 percent of teachers in schools with less than 35 percent of students eligible for free or reduced-price lunch). Although the number of veteran teachers (with 20 or more years of experience) has decreased, this pattern has created a U-shaped curve as the number of midcareer teachers has declined at a faster rate (Planty et al., 2007).

Characteristics of Generation Y Teachers

This generational shift in the teaching workforce mirrors a similar shift in other careers. Research on the new generation of workers, Generation Y (Gen Y), is being conducted in other fields, and education is not far behind. Although the range sometimes varies by source, Gen Y is most often defined as the cohort of people born between 1977 and 1995 (Shaffer, 2008). Like previous generations, Gen Y has its own distinct characteristics (Behrstock & Clifford, 2009). Currently, however, there is little research that rigorously investigates the preferences and attributes of this new generation. Nevertheless, initial market research (Carter & Carter, 2001; Reeves, 2006; Shaffer, 2008; Wong & Wong, 2007a, 2007b; Yuva, 2007) suggests that members of Gen Y tend to have the following characteristics:

- Are well-educated and educationally minded
- Are comfortable with technology
- Are creative, innovative, and self-confident professionally
- Are collaborative and eager to contribute to a larger "change" movement
- Are focused on strong moral values
- Are connected to family and community
- Have a strong desire for diversity and inclusiveness in the workplace and society as a whole

Gen Y teachers bring great potential for change to the profession and the way schooling is perceived in America. School leaders must work differently than they have in the past to harness this potential, using what they know about Gen Y teacher characteristics to recruit and retain the highest performing among their ranks (Behrstock & Clifford, 2009).

TQ CENTER RESOURCES

The TQ Center and Public Agenda produced a series of three briefs that explore the experiences and plans of Gen Y teachers to help states and districts better understand how the characteristics, values, and goals of this generation will affect the teaching field and how their experiences can inform teacher preparation, support, and development.

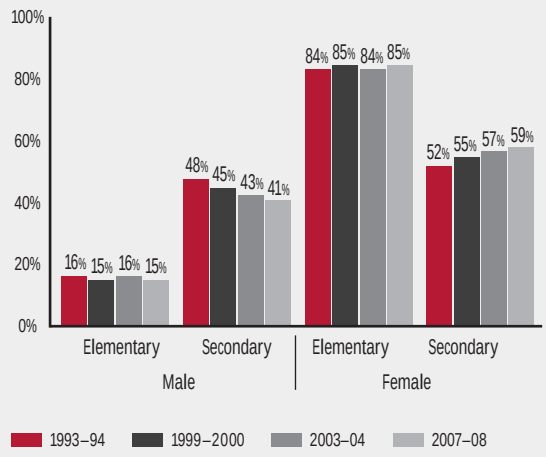
- *Lessons Learned: New Teachers Talk About Their Jobs, Challenges and Long-Range Plans. Issue No. 1—They're Not Little Kids Anymore: The Special Challenges of New Teachers in High Schools and Middle Schools* (2007) (http://www.tqsource.org/publications/LessonsLearned1.pdf)
- *Lessons Learned: New Teachers Talk About Their Jobs, Challenges and Long-Range Plans. Issue No. 2—Working Without a Net: How New Teachers From Three Prominent Alternate Route Programs Describe Their First Year on the Job* (2007) (http://www.tqsource.org/publications/lessonslearned2.pdf)
- *Lessons Learned: New Teachers Talk About Their Jobs, Challenges, and Long-Range Plans. Issue No. 3—Teaching in Changing Times* (2008) (http://www.tqsource.org/publications/LessonsLearned3.pdf)

Other Demographic Characteristics

Gender. Three quarters of the teaching workforce is female, and the proportion of women has been steadily rising since the early 1990s. In 1993–94, women made up 73 percent of the teaching workforce (Planty et al., 2007); in 2007–08, that figure climbed to 76 percent (Coopersmith & Gruber, 2009). As depicted in Figure 1.3, secondary schools have a greater representation of male teachers but these numbers have been declining. Males accounted for nearly half of all secondary school teachers in 1993–94, but by 2007–08, males made up only 41 percent of the secondary school teaching workforce.

Figure 1.3

Gender of Teachers in Both Public and Private Schools by School Level



Source: Planty et al. (2007, pp. 184–186); Coopersmith and Gruber (2009, p. 9)

This gender imbalance in the teaching workforce seems unlikely to change in the immediate future. Gitomer (2007) analyzed trends in individuals taking the Praxis II subject examination, which measures "knowledge of content, pedagogy, and content-specific pedagogy" (p. 8). Because the Praxis II is required for state licensure in approximately 30 states and the District of Columbia (Baber, 2008), analysis of the population taking the examination provides a sense of the changing

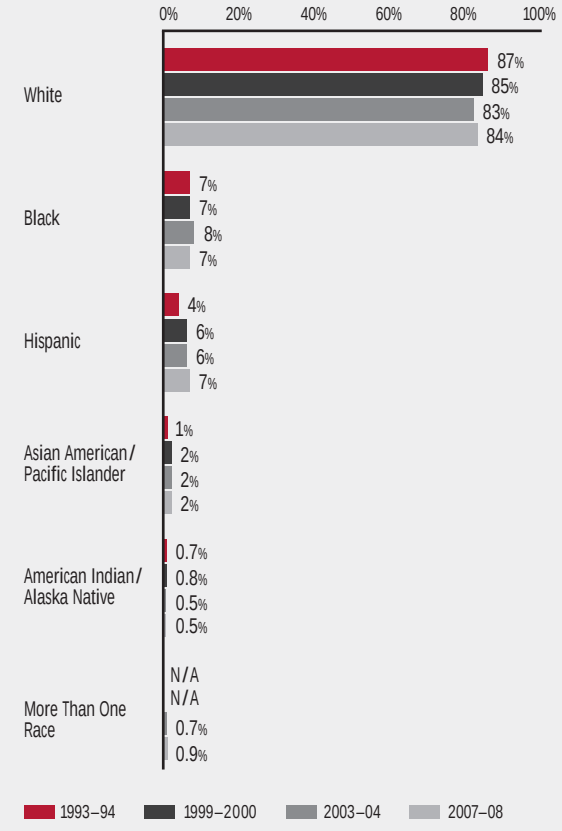
demographic and academic backgrounds of those seeking to become teachers. Gitomer used data gathered from two cohorts of teachers who took the Praxis II examination between 1994–97 and 2002–05. He found no significant change in gender distribution between cohorts; approximately one fourth of test takers were male, and three fourths were female (Gitomer, 2007).

Race/Ethnicity. The racial makeup of the teaching workforce has predominantly consisted of white teachers throughout the past decade (see Figure 1.4). The largest increases in percentages of minority teachers during the past decade were among black and Hispanic elementary school teachers. The percentage of Hispanic teachers in the teaching workforce showed the greatest overall increase—from 4 percent in 1993–94 to 7 percent in 2007–08. More significant differences in racial makeup exist between public and private schools, however. For example, in 2007–08, black teachers made up 7 percent of the elementary public school workforce compared to 5 percent of elementary private school workforce. Similar patterns hold true for secondary school teachers (Coopersmith & Gruber, 2009).

Similarly, Gitomer's (2007) research on Praxis II test takers showed a small increase in the percentage of Hispanic teachers (or prospective teachers) who took the test, but the overwhelming majority of test takers were white teacher candidates (see Figure 1.5).

Figure 1.4

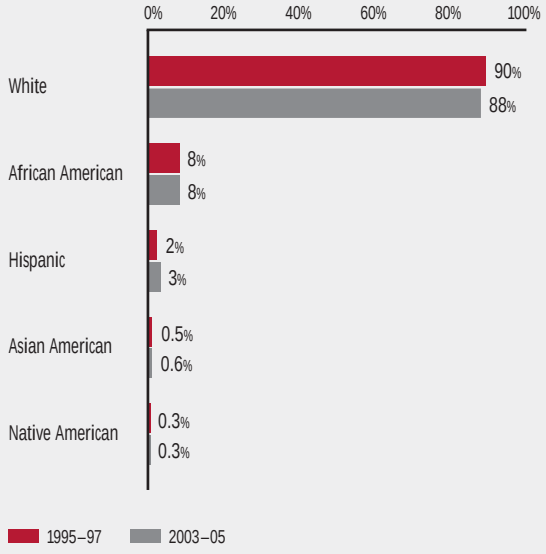
Race/Ethnicity of Teachers in Both Public and Private Schools



Source: Planty et al. (2007, pp. 187–189); Coopersmith and Gruber (2009, p. 7).

Figure 1.5

Profiles of Praxis II Candidates by Ethnicity



Source: Gitomer (2007, p. 12)

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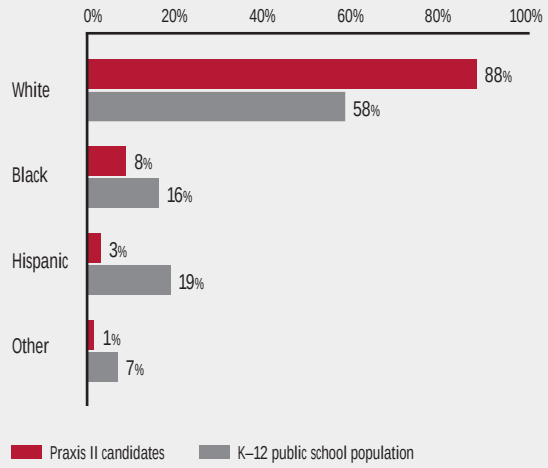
According to 2003 data, the demographics of the teaching force do not match the demographics of the K–12 student population in the United States (see Figure 1.6). The effect of variation between teacher and student race/ethnicity is not well understood; however, data from recent studies in Texas and Tennessee have shown that in some cases, students have achieved at higher rates when taught by teachers of their own race (Dee, 2004; Hanushek, Kain, O'Brien, & Rivkin, 2005). These results imply that different recruitment and support approaches may need to be implemented to attract more minority teachers; these teachers may bring different attitudes, values, and experiences to their students.

Figure 1.6

Comparison of the Diversity of Praxis II Candidates and the K–12 Population for 2003



Source: Gitomer (2007, p. 11)

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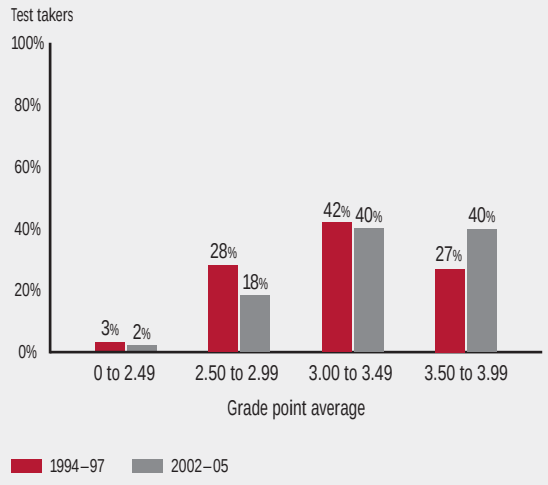
Figure 1.7

Undergraduate Grade Point Average of Praxis II Test Takers



Source: Gitomer (2007, p. 13)

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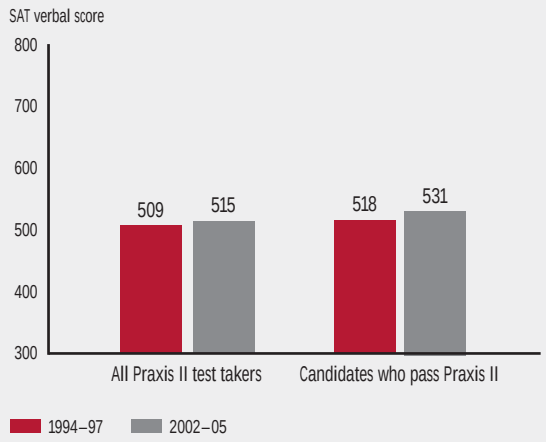
CHANGING QUALIFICATIONS

Qualifications of Teacher Candidates

In the late 20th century, some education observers believed that individuals seeking to become teachers were academically weaker than candidates for other professions. Current evidence indicates that this may no longer be the case. Gitomer (2007) found that teachers taking the Praxis II exams in 2002 to 2005 were academically much stronger, in terms of college grade point average (GPA) and SAT scores, than those taking the test in 1994 to 1997. As indicated in Figure 1.7, teacher candidates with an overall GPA greater than 3.5 (4 being the highest possible) increased from approximately 27 percent to 40 percent, and those with a GPA of less than 3.0 fell by more than one third (38 percent). Teacher candidates' SAT scores, both verbal and mathematics, increased during this period as well (see Figures 1.8 and 1.9), while the general population showed no change in SAT verbal scores (Gitomer, 2007). As demonstrated in Figure 8, for example, SAT verbal scores increased by an average of 6 percentage points among those who took the test and upwards of 13 percentage points among those who passed the Praxis II (based on state test score cutoffs).

Figure 1.8

Average SAT Verbal Scores of Praxis II Test Takers



Source: Gitomer (2007, p. 18)

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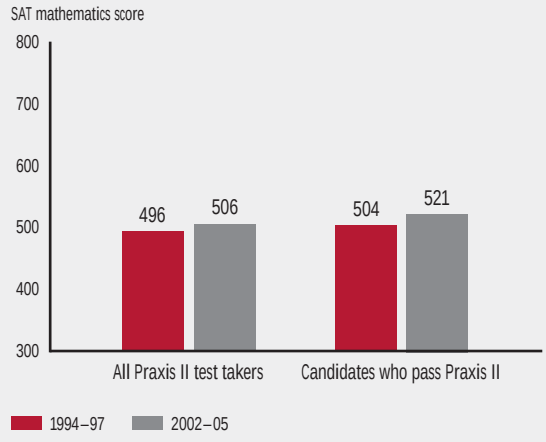
Figure 1.9

Average SAT Mathematics Scores of Praxis II Test Takers



Source: Gitomer (2007, p. 19)

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Qualifications of New Teachers

The New Teacher Project (2007) conducted a research series on hiring, assignment, and transfers of public school teachers in Chicago. This research provides insight into the qualifications of teachers entering the workforce in Chicago. A majority of the principals surveyed (72 percent) indicated that they are satisfied with the quality of a significant percentage (76 percent) of the new teachers in Chicago Public Schools (CPS). The average GPA for a teacher applicant in Chicago is 3.3. In addition, 36 percent of applicants have master's degrees. The hiring process has become more selective. In 2004, CPS hired 18 percent of applicants. In 2005, this figure decreased to 16 percent and in 2006 to 12 percent (The New Teacher Project, 2007).

Meanwhile, Illinois Education Research Council (IERC) researchers (White, Presley, & DeAngelis, 2008) have been studying the qualifications of teachers across the state using its schoolwide teacher-quality index developed in 2005. The indicators make up the Illinois Teacher Academic Capital (ITAC) scale and include the following:

- Teachers' mean ACT composite score
- Teachers' mean ACT English score
- Percentage of teachers failing the Illinois Basic Skills Test on their first attempt
- Percentage of teachers with emergency/provisional certification
- Teachers' mean undergraduate college competitiveness rating

Based on these indicators, IERC researchers found that between 2001 and 2006, there was a small, positive increase in Illinois teacher academic capital (White et al., 2008). Although there is still a gap in ITAC scores between Chicago and the rest of the state, it has decreased by 27 percent between

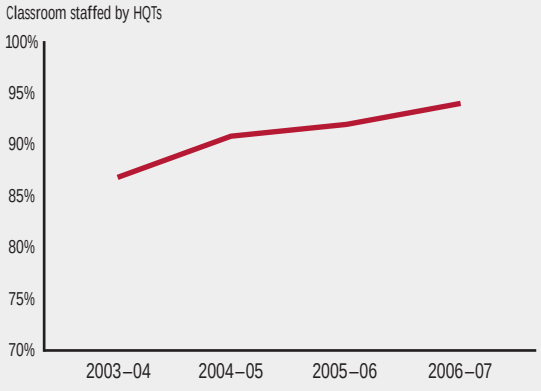
2001 and 2005. Furthermore, the largest improvements in average school ITAC scores from 2001 to 2006 occurred within CPS (White et al., 2008). The improvements in Chicago can be linked to the hiring of teachers with stronger academic backgrounds. In a comparison between experienced and inexperienced teachers in Chicago, the inexperienced teachers have consistently higher ACT composite averages and higher rates of college competitiveness. Although these data are limited to Illinois, they are an example of changes in the qualifications of teachers entering the workforce.

Qualifications of Existing Teachers

The qualifications of the existing teacher workforce nationwide seem to be improving as well. The percentage of classrooms with HQTs rose between the 2003–04 and 2006–07 school years from 87 percent to 94 percent (National Comprehensive Center for Teacher Quality, 2008; see Figure 1.10). Although still far short of the goal of 100 percent HQTs, progress has been made. One state, North Dakota, reported 100 percent HQTs in 2006–07. Furthermore, 81 percent of states reported that 90 percent or more of their teachers are highly qualified. The data also indicate that a majority (65 percent) of the states have increased their percentage of HQTs by more than 10 percentage points from the 2005–06 to the 2006–07 school years (National Comprehensive Center for Teacher Quality, 2008).

Figure 1.10

U.S. Progress in Meeting HQT Requirement (2003–04 to 2006–07)



Source: National Comprehensive Center for Teacher Quality (2008, p. 1)

These data do not include special education teachers, as unique challenges exist in identifying and reporting the highly qualified status of these teachers. According to the current provisions of ESEA, only special education teachers who are identified as the primary instructor for a core academic subject are required to be highly qualified. Special education teachers who do not directly instruct students in core academic subjects or who provide only consultation to teachers in adapting curricula—using behavioral supports and interventions or selecting appropriate accommodations—do not need to demonstrate subject-matter competency in those subjects. According to reports from the ESEA Title II, Part A monitoring visits, some states do not have the proper data systems in place to accurately determine which special education teachers are subject to HQT requirements. Furthermore, options for obtaining highly qualified status vary depending on whether the teacher is exclusively teaching students assessed through alternate achievement standards or teaching multiple subjects (National Comprehensive Center for Teacher Quality, 2009).

QUALIFICATIONS AND TEACHER DISTRIBUTION

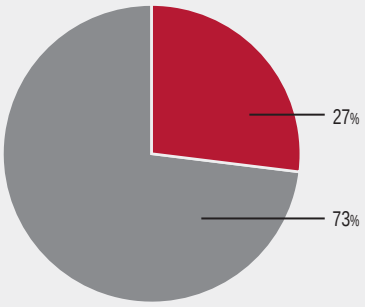
Despite the fact that progress is being made, students in high-poverty and high-minority schools are still less likely to be taught by HQTs. Prior to the implementation of the current ESEA provisions, SASS data indicated that many classrooms, particularly those with high percentages of minority students or

students from low-income families, were staffed with teachers teaching outside of their field of expertise. In the 1999–2000 school year, 38 percent of all teachers teaching mathematics had neither a major nor a minor in mathematics; mathematics education; or related disciplines such as engineering, statistics, or physics (Ingersoll, 2003). Furthermore, when disaggregated by subject and grade level, data indicated that middle school students were more likely to be taught by an out-of-field teacher than their high school counterparts. This problem was particularly acute in middle school mathematics and bilingual education (Wirt et al., 2003). In disadvantaged schools, 51 percent of mathematics teachers were teaching out-of-field. The out-of-field teaching issue was not confined to mathematics. In fact, 35 percent of English teachers, 26 percent of social studies teachers, and 28 percent of science teachers were teaching out-of-field. In New York state, minority students were four times more likely than white students to be assigned a teacher who was not certified in all of his or her subjects (Boyd, Lankford, & Loeb, 2003).

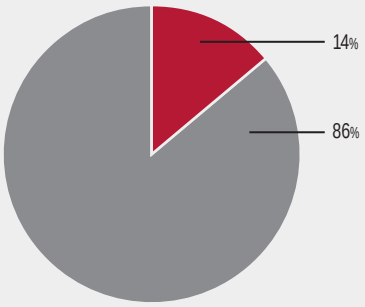
Since the current provisions of ESEA were implemented, some progress has been made, but significant challenges still exist. An analysis of 2003–04 SASS data revealed that 42 percent of middle school core academic subject classrooms and 17 percent of high school core academic subject classrooms did not have a teacher with a major or certification in the subject (The Education Trust, 2008). Out-of-field teaching is a problem in both low-poverty and high-poverty schools but is disproportionately so for high-poverty schools. As illustrated in Figure 1.11, one in every four core academic subject classes in high-poverty schools is staffed by a teacher without a major or certification in his or her subject, which has the potential to detrimentally affect student learning.

Figure 1.11

Percentage of Out-of-Field Teachers in High-Poverty Schools



Percentage of Out-of-Field Teachers in Low-Poverty Schools



Source: The Education Trust (2008, p. 1)

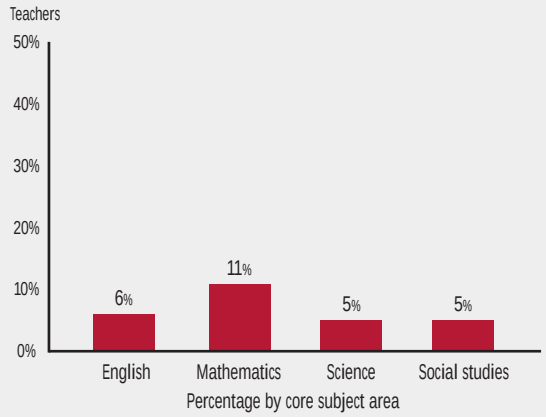
Although the research is not conclusive, some education research suggests a relationship between teacher subject-matter knowledge and student achievement (Clotfelter, Ladd, & Vigdor, 2006; Goldhaber, 2007; Harris & Sass, 2007). Furthermore, this relationship was discovered through studies on content knowledge in mathematics—one of the subjects with the largest percentage of out-of-field teachers, with 11 percent of high school mathematics teachers teaching out-of-field (see Figure 1.12).

The high prevalence of out-of-field mathematics teachers also applies when considering the minority status (see Figure 1.13) and poverty status (see Figure 1.14) of schools. Questions are being raised in

the field as to the extent to which the measures used for subject-matter knowledge are reflective of what teachers really need to know to teach students effectively (National Mathematics Advisory Panel, 2008).

Figure 1.12

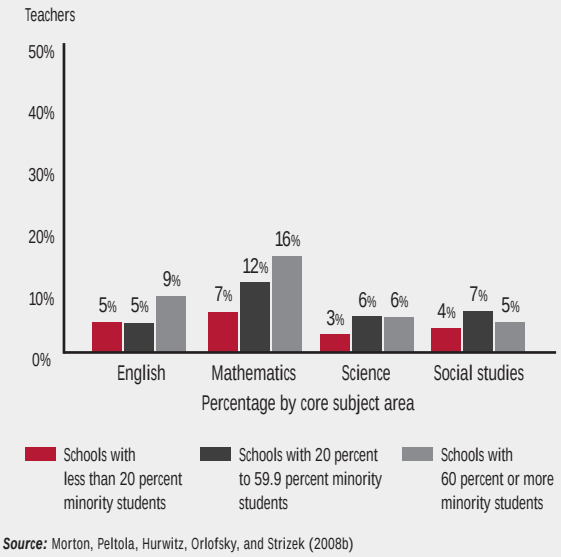
Percentage of Out-of-Field Secondary Teachers in 2003–04



Source: Morton, Peltola, Hurwitz, Orlofsky, and Strizek (2008a, p. 24)

Figure 1.13

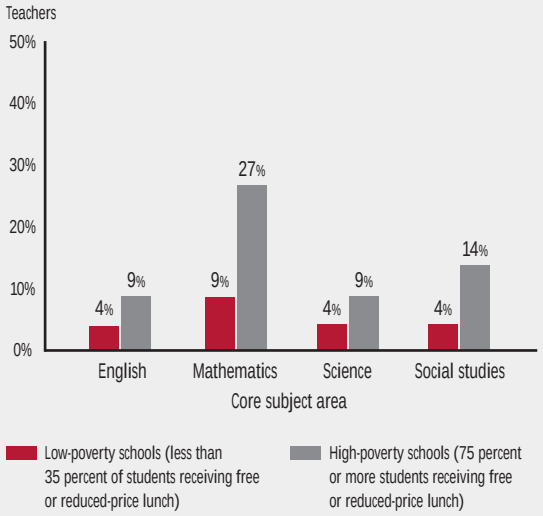
Percentage of Out-of-Field Teachers for High-Minority and Low-Minority Schools in 2003–04



Source: Morton, Peltola, Hurwitz, Orlofsky, and Strizek (2008b)

Figure 1.14

Percentage of Out-of-Field Teachers in High-Poverty and Low-Poverty Schools, Measured by Free or Reduced-Price Lunch Eligibility in 2003–04



Source: Morton et al. (2008b)

CHANGING TEACHER POLICIES

Broad economic, demographic, and social forces account for many of the changes in America's teaching workforce. Much of the flux is a result of three sweeping changes in federal and state teacher quality regulation policies:

- In response to widespread teacher shortages and emboldened by a polity open to the idea, states aggressively passed legislation allowing expanded alternative routes to teacher certification.
- Title II of the 1998 Amendments to the Higher Education Act (HEA) represented an unprecedented increase in federal scrutiny of teacher preparation program outcomes.
- Titles I and II of ESEA required that state and district leaders maintain a dual focus on both school inputs (teacher qualifications) and school outcomes (student academic achievement).

Rapid Expansion of Alternative Routes

Former Education Secretary Rod Paige's first annual Title II report to Congress concluded, "Our system of teacher certification is thwarting the aspirations of our most talented individuals—while at the same time maintaining low academic standards and failing to prepare teachers for the reality of the classroom" (Office of Postsecondary Education, 2002, p. 15). The report promoted alternative routes like Teach For America and Troops to Teachers, seeking to end the "exclusive franchise" of schools of education. One third of the current alternative routes to certification have been created since 2000 (Feistritzer, 2008), and today, all 50 states and the District of Columbia have some type of alternative teaching certification plan in place (Feistritzer, 2009).

Many of these alternative route programs were created to respond to limited teacher supply for hard-to-staff schools (e.g., those in high-poverty urban and rural areas) and subject areas (e.g., mathematics, science, special education, and bilingual education classes). Proponents of alternative routes to certification suggest that these programs can actually be more selective because they have a larger applicant pool than traditional route programs (Chait & McLaughlin, 2009). Furthermore, they contend that the alternative route programs have the potential to be more innovative in targeting their programs to the needs of the school, district, or state that they serve. However, as the National Academy of Education (2009) concluded, "There is still no clear evidence about which routes produce the best results for student learning" (p. 5). This lack of evidence can be attributed, in part, to the complexity of the teacher preparation terrain. Programs vary considerably within each broad category of "traditional" and "alternative." For example, Boyd et al. (2006) indicate that significant variability exists in the following:

- Backgrounds of the individuals in each type of program
- Program admissions requirements
- Faculty qualifications
- Amount of practice-based training that participants receive
- Types of schools in which teachers are placed
- Number, type, and timing of coursework requirements

Even after attempting to control for some of this variability, a recent randomized controlled study failed to find strong support for one type of route over another (Constantine et al., 2009). Evidence does suggest, however, that there are significant differences in program effectiveness within routes. In other words, researchers can determine which programs produce graduates who are more effective in increasing levels of student achievement in their first year (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2008). Sophisticated measures of program inputs, processes, and outcomes are urgently needed to determine which aspects of teacher preparation are most effective. For example, Boyd et al. (2008) have found that preparation that is directly linked to practice is more effective for English language arts and mathematics teachers in Grades 4–8.

As discussed previously, the percentage of teachers with nine or fewer years of teaching experience has grown at a higher rate than the percentage of teachers under age 30, which indicates that a large number of teachers are entering the profession at a later age. This trend may be explained by the increasing percentage of teachers who have entered the profession after experiencing another career. These teachers likely would

not have been prepared during their undergraduate years in college but may have taken an alternative route by obtaining a teaching certificate through a master's deree in education at a college or university or through some other program. In an analysis of seven alternative certification programs, researchers found that 42 percent of participants were either previously in education or enrolled full time at a university prior to entering the alternative route program. However, they also found that 5 percent came from a mathematics career, 2 percent from a legal career, and 6 percent from a financial or accounting background (Humphrey & Wechsler, 2007). Although firm numbers are difficult to obtain given the many definitions of alternative route, Feistritzer (2009) estimates that nearly 59,000 teachers entered teaching through an alternative route program in 2005–06, up from more than 6,000 in 1993–94. She further estimates that nationwide, one third of all new teachers take an alternative route to teaching, suggesting that states are opening up paths to fill critical shortages.

The Secretary's Fifth Annual Report on Teacher Quality (Office of Postsecondary Education, 2006) indicates an increase in participation in alternative routes to certification between 2000–01 and 2003–04; the number of teachers completing an alternative route program increased by 4 percentage points during the course of four years. The numbers varied between the states, and the proportion of those who completed alternative route programs in 2003–04 was much higher in Maine (43 percent), New York (42 percent), Louisiana (39 percent), New Jersey (37 percent), and Texas (35 percent) (Office of Postsecondary Education, 2006).

All 50 states and the District of Columbia have created alternative routes to teacher certification. In fact, there are a total of 130 different alternative-route programs being implemented in 485 separate sites across the country (Feistritzer, 2008). Furthermore, data indicate that one third of new teachers hired nationally have taken alternative routes to teacher certification (Feistritzer, 2008). These numbers include local implementation sites of the five major national alternative routes to teacher certification: Teach For America, The New Teacher Project, the Transition to Teaching program, Troops to Teachers, and the American Board for Certification of Teacher Excellence.

Accurately counting the number of teachers who complete alternative routes is challenging for a variety of reasons. For example, there is no common definition of *alternative certification* or *alternative route* among states. In addition, teachers in many of these programs receive full, regular certification from the state once they have completed all of the requirements (Humphrey & Wechsler, 2007). Finally, the variability across programs makes it difficult to accurately measure how many teachers come from alternative certification programs versus traditional teacher preparation routes.

Heightened Focus on Teacher Qualifications Through the Higher Education Act

Title II of the 1998 Amendments to HEA began tying federal funding to the performance of teacher preparation program graduates on certification exams. It also required programs to submit detailed accountability plans (and these reporting requirements have increased in the 2008 HEA reauthorization). In addition, HEA required states to report the following:

> Information on the extent to which teachers in the State are given waivers of State certification or licensure requirements, including the proportion of such teachers distributed across high- and low-poverty school districts and across subject areas. (Title II, Section 207, b[6])

This requirement prompted states to focus on collecting data on the qualifications, particularly the content-area qualifications, of teachers entering the profession and the distribution of these teachers once in the field. It also required reporting of this information so that the public and policymakers could easily determine which states relied more heavily than others on emergency certifications. This increased scrutiny may have led to the increase in teachers' academic capital and qualifications; however, no empirical evidence exists to substantiate that claim.

Dual Focus on Qualifications and Effects in the Current Provisions of ESEA

The current HQT provisions of ESEA require that states report the distribution of teacher *inputs* (i.e., their highly qualified status relative to the subject they are teaching), whereas the adequate yearly progress provisions require reporting of teacher *outputs* (i.e., their individual and collective contributions to student academic achievement outcomes). This dual approach was designed to ensure that student learning remained the central focus of the education systems' effort by ensuring that students were no longer placed in classrooms staffed by emergency certified, out-of-field, or otherwise unqualified teachers.

As part of this assurance, states were required to submit revised HQT state plans in which they reported data on the HQT status of their teachers and the strategies to be implemented to achieve the goal of having 100 percent HQTs by 2006. Many states struggled with obtaining approval of these revised state plans. The TQ Center worked with RCCs and states to assist them in their efforts. Examples of this work, in which the TQ Center collaborated with the Northwest Regional Comprehensive Center and the Mid-Continent Comprehensive Center, are presented later in this chapter.

One challenge for states was the current ESEA requirement that secondary school teachers demonstrate subject-area competence for each core academic subject taught. In rural classrooms, for example, secondary teachers often teach more than one subject and science teachers teach more than one category of science—each requiring a different area of expertise. (For example, biology, earth science, and physics have different knowledge bases.) The U.S. Department of Education (2004) responded to this challenge by providing some flexibility in how teachers obtain HQT status for specified circumstances, such as those teachers teaching multiple subjects.

The law also required that special education teachers be highly qualified if they are identified as the primary instructor for a core academic subject and that they meet these requirements for every core academic subject they teach. Tracking and reporting the qualifications of special education teachers proved to be especially challenging for many states. The TQ Center worked with several states to learn how special education teachers were counted and reported.

Although the HQT provisions were meant only to establish minimum qualifications, many stakeholders have criticized the law for too narrowly focusing on teacher qualifications that have little empirical support as predictors of teacher effectiveness (Cochran-Smith & Lytle, 2006; Goldhaber, 2007; Gordon, Kane, & Staiger, 2006). This criticism has led to increasing calls for incorporating measures of teacher effectiveness (e.g., teachers' influence on growth in student achievement as well as other performance-based measures) into the law (The Commission on No Child Left Behind, 2007; Gordon, Kane, & Staiger, 2006). As a result of the activity surrounding the dual focus of the current provisions of ESEA, SEAs have a better understanding of the qualifications of their teacher workforce and are now in a position to focus more diligently on the effectiveness of those teachers.

ENDURING CHALLENGES AND FUTURE POSSIBILITIES

Dramatic shifts have taken place in the composition of America's teaching workforce; however, some challenges persist for policymakers and practitioners:

- The racial and gender makeup of the teaching workforce still does not reflect the diversity of the student population. More research is necessary to understand the impact of this imbalance, but states and other stakeholders should work toward ensuring that the best candidates from all backgrounds are recruited and given access to the profession.
- The availability of empirical data on the characteristics of Gen Y teachers is limited, in comparison with that of previous generations. The lack of rigor in current studies suggests that more research is needed to thoroughly understand generational differences and what it really means for the education field to train, recruit, and support Gen Y teachers.
- Many teachers continue to be assigned to classes outside of their field of qualification. Not all teachers are highly qualified for their assigned subject, and highly qualified and experienced teachers continue to be underrepresented in high-need schools.
- State data systems are still works in progress. Complicated technical and "human" issues of data management and governance have yet to be fully addressed so states can track teachers in a way that can inform their human capital management strategies. States have barely even begun to fully grapple with making their data systems compatible with the data systems of neighboring states so that the mobility of teachers across state lines can be understood.
- Emergency credentials are still used in many states—though, in most cases, they are temporary stop-gap measures (National Council on Teacher Quality, 2008). Evidence obtained through the U.S. Department of Education monitoring visits suggests that states are starting to take measures to eliminate the use of emergency credentials.
- To better understand the evolution of pathways to licensure in this country, a common language to talk about routes to licensure, types and tiers of licenses, and types of teacher preparation programs needs to be established. Being able to classify licensure pathways into a taxonomy would make teacher qualifications and preparation experiences more transparent to policymakers, researchers, school hiring committees, and parents.
- Too few examples of standardized systems for evaluating the effectiveness of teachers exist, so it is nearly impossible to determine the distribution of highly effective (as opposed to simply highly qualified) teachers.

Despite these challenges, progress is being made in enhancing the academic qualifications of prospective, entering, and existing teachers. Moreover, the surge of Gen Y teachers opens up vast areas of potential for changes in the arrangements of the teaching profession. The TQ Center stands ready to support states as they enter the next phase of national teacher quality policy with the current provisions of ESEA.

The following sections of this chapter include examples of work that the TQ Center has conducted in collaboration with RCCs to support states as they tried to better account for and support their teaching workforce.

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Case Study: Montana

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Special education teachers make up approximately 10 percent of teachers nationwide (Data Accountability Center, 2006a, 2006b) and play an essential role in the education of the nearly 6 million students with disabilities receiving services in public schools (Data Accountability Center, 2007). Quality special education teachers are essential in providing students with disabilities access to and opportunities for progress in the general education curriculum. Although students with disabilities are in particular need of high-quality teachers, the chronic and worsening shortage of special education teachers has historically forced administrators to hire less-than-qualified applicants.

The current provisions of the Elementary and Secondary Education Act (ESEA) and the Individuals with Disabilities Education Act (IDEA) highly qualified teacher (HQT) accountability and reporting requirements were designed to identify and resolve issues of special education teacher quality. Unfortunately, several unforeseen barriers to data collection have arisen because of the complex nature of special education. Efforts to reliably capture HQT data are hampered by the variability and unpredictability in special education service delivery models (e.g., pullout, cotaught, self-contained).

The Montana Office of Public Instruction (OPI) was cited in its ESEA Title II, Part A monitoring report for failing to determine the highly qualified status of special education teachers within its HQT counts. To respond to this finding, OPI, through the Northwest Regional Comprehensive Center (NWRCC), requested information on how states address the HQT data collection requirements for special education under the current provisions of ESEA.

NORTHWEST REGIONAL COMPREHENSIVE CENTER

The Northwest Regional Comprehensive Center (NWRCC) at the Northwest Regional Educational Laboratory serves the states of Washington, Oregon, Idaho, Montana, and Colorado. It is one of 16 RCCs funded by the U.S. Department of Education to help build the capacity of SEAs to implement the current provisions of ESEA and support districts and schools in efforts to improve student outcomes. NWRCC focuses on response to intervention; statewide systems of support; student learning in science, technology, engineering, and mathematics; and high-quality teaching.

Together, the TQ Center and NWRCC investigated federal data collection requirements, gathered information on seven state approaches, and prepared a final report. This report, *Response to Technical Assistance Request: Highly Qualified Teacher Requirements for Special Education Teachers Under the No Child Left Behind Act* (Max & Holdheide, 2008), was shared and discussed with OPI, made available to other states responding to similar findings, and highlighted at the 2008 What Works Conference as a resource for states with upcoming monitoring visits. The TQ Center and NWRCC's technical assistance provided OPI with the tools necessary to facilitate the development of a strategic plan to capture special education HQT data within the required timeframe.

The special education HQT data collection considerations that were highlighted throughout this effort can be categorized into three overarching themes:

- Special education teachers subject to highly qualified teacher requirements
- Demonstrating subject-matter competency for special education teachers
- Special education highly qualified teacher data collection efforts

> "This is an excellent example of how the system is supposed to work. The timeline was short. The necessary information was scattered and buried. The TQ Center responded in a timely manner with a document that was used extensively in forming the SEA response to a finding from a recent federal monitoring visit."
>
> *—Robey Clark, Northwest Regional Comprehensive Center*

SPECIAL EDUCATION TEACHERS SUBJECT TO HQT REQUIREMENTS

As a general rule, the current provisions of ESEA require states to report HQT data for all core subject classes, whether general education or special education. As a result, special education teachers who are teachers of record (having primary responsibility for classroom instruction) and provide direct instruction in core academic subjects must meet the full HQT requirements, which include demonstrating content knowledge for each core subject taught. Meeting these requirements is problematic because of variability in service delivery models and the contexts in which special education teachers work. Special educators may teach students with different disability classifications, ages, and/or ability levels, and within differing service delivery models (e.g., pullout, cotaught, self-contained).

In an effort to account for the varying roles, the U.S. Department of Education (2004) clarified that a teacher of record who provides "direct instruction in core academic subjects" (p. 2) must meet the full HQT requirements, whereas those who, under supervision of a general education HQT, assist—by adapting curriculum, providing behavioral support or interventions, or selecting appropriate accommodations—do not have to meet HQT requirements (U.S. Department of Education, 2005). In addition, special education teachers who solely teach students assessed through alternate achievement standards can demonstrate subject-matter knowledge at the elementary level or at the level deemed appropriate for their instruction.

For more information on HQT requirements, refer to the Office of Special Education Programs (2006).

DEMONSTRATING SUBJECT-MATTER COMPETENCY FOR SPECIAL EDUCATION TEACHERS

Special education teachers who are teachers of record in core subject areas must demonstrate competency in each core subject they teach. The methods through which special education teachers may demonstrate competency are generally the same as those for general education teachers (e.g., content-area tests, coursework, other methods defined by the state). This process can be challenging for special education teachers who teach multiple subjects, at various grade levels, and across differing ability levels. The current provisions of ESEA and IDEA provide flexibility for special education teachers who teach multiple subjects, allowing existing special education teachers to demonstrate competence by using the high, objective, uniform state standard of evaluation (HOUSSE) procedure and granting new special education teachers a two-year

grace period if they already are qualified in mathematics, language arts, or science. State education agency (SEA) HOUSSE procedures contain rubrics that account for years of teaching experience, coursework or professional development, and professional services in the subject area.

SPECIAL EDUCATION HIGHLY QUALIFIED TEACHER DATA COLLECTION EFFORTS

States must collect data on core academic subjects taught by special education teachers to determine whether these teachers need to meet HQT requirements. Specifically, data need to be collected on whether special education teachers provide direct instruction in core academic subjects or teach core academic subjects exclusively to students who are assessed through alternate achievement standards. States differ in whether they maintained separate data systems for general education and special education teachers and whether they linked teacher data across multiple databases to track HQT requirements. Some states used an online survey for districts or teachers to provide additional information on the HQT status of teachers, review and revise the HQT information collected by state, or explain how a teacher who is not highly qualified will meet the requirements.

FINDINGS AND IMPLICATIONS FOR FUTURE WORK

Building the technical capacity to reliably capture special education HQT data requires a comprehensive approach. Valid and reliable data used to guide decisions must be consistent with the teaching experiences within the district and systematically collected and analyzed. Therefore, data collection methods become broader than simply modifying the data infrastructure to collect the needed data and forge a deeper investigation into the idiosyncrasies of special education service delivery models. As such, special education HQT data collection has far-reaching implications into special education teaching practices, preparation, and licensure. Regional comprehensive centers (RCCs) and SEAs can learn from the following challenges and recommendations that emerged from this examination of HQT efforts.

Challenges and Recommendations

- The interrelationship between HQT requirements, data collection requirements, and implementation efforts requires a collaborative approach. Working collaboratively across departments (i.e., special education, licensure, information systems, and federal grant programs) enables SEAs to identify existing sources of HQT data and jointly develop a plan for producing a comprehensive system of data collection to meet general and special education reporting needs.
- Variability exists in special education service delivery models. SEAs should clarify, to the extent possible, the various roles and contexts in which special educators work. Moreover, SEAs should provide consistent definitions that allow for some degree of variability sensitive to local programmatic decisions in order to create a platform for reliable data collection and reporting.
- SEAs with the capacity to cross-reference between databases using unique teacher and student identifiers are better equipped to account for and disaggregate special education HQT data. Data collection systems with the capacity to gather detailed class information—by tracking the subject area and grade level as well as the primary and secondary (if relevant) teacher assigned to the class and the role of each teacher in the class—show promise toward greater accountability.

- Special education teachers, especially those in rural middle and secondary schools, often teach multiple core content subjects. Special education teacher preparation and certification categorized by state K–12 certification across disability areas fail to provide special education teachers with content knowledge that can be demonstrated at the secondary level. SEAs, in collaboration across departments and with the state institutions of higher education teacher preparation programs, should consider certification and programmatic changes that offer content-area preparation to middle and secondary teacher candidates.

As recently as a decade ago, the technological infrastructure was not available to create the comprehensive data collection systems for state and local accountability required in the current provisions of ESEA and IDEA. Some SEAs have charted the path and begun to strategically address all elements of a systemic approach to accountability. SEAs and RCCs should consider the outlined recommendations as they develop the infrastructure to capture teacher data.

As SEAs progress from securing HQTs to identifying highly effective teachers, it is essential for special education practitioners to be at the forefront of these discussions to ensure that the unique facets of special education are considered and addressed. As plans for state teacher evaluation systems progress, SEAs need to account for the varying roles and responsibilities that special educators assume and incorporate these distinctions within the technological infrastructure. Valid and reliable special education teacher data are essential. Accountability matters and is an integral part in making policy decisions. The TQ Center stands ready to collaborate with SEAs, RCCs, and their constituents and looks forward to continued work in identifying and documenting highly qualified special educators.

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Collaborating With the Mid-Continent Comprehensive Center and Its States to Improve the Quality of Teaching

Part of the mission of the TQ Center is to foster relationships with and build the capacity of regional comprehensive center (RCC) colleagues, as evidenced through its collaboration with the Mid-Continent Comprehensive Center. The Mid-Continent Comprehensive Center and its states—Arkansas, Kansas, Missouri, and Oklahoma—initiated this long-term collaboration in 2006 by seeking TQ Center assistance on the federally mandated highly qualified teacher (HQT) state plans. Part of the charge of the revised state plans required each state to develop a plan to ensure the equitable distribution of teachers across schools and districts.

While supporting the Mid-Continent Comprehensive Center states as they prepared for federal monitoring of the *implementation* of their HQT plans, the TQ Center took the opportunity to work with RCC and state education agency (SEA) staff toward more long-term goals, using the state plans—including the equity plans—for the following purposes:

- Take stock of teacher and leadership quality data and initiatives.
- Organize and communicate about a systemic approach to human capital management.
- Leverage state policy and practice to meet teacher and leadership quality goals.

The TQ Center views the state HQT plans as a way for states to move these important efforts forward.

From 2006 through 2009, the TQ Center has engaged in a range of activities with the Mid-Continent Comprehensive Center and its states, including on-site working meetings, document reviews, resource sharing, and small-group work facilitation. Focus areas for these technical assistance efforts included data collection, analysis, and reporting; technical assistance for and monitoring of local education agencies (LEAs); and equitable teacher distribution. In some cases, the TQ Center scaled up this work to make it available and useful to all RCCs and states by using the TQ Center website as the primary dissemination vehicle.

More important than the kinds of technical assistance offered by the TQ Center were the outcomes and lessons learned for those technical assistance efforts. One primary outcome was the cultivation of important relationships between the TQ Center, the Mid-Continent Comprehensive Center, and the Mid-Continent Comprehensive Center's states. This relationship development has supported continued work and has facilitated capacity building in the RCC and the states. For example, engaging in this work improved the knowledge base of TQ Center and Mid-Continent Comprehensive Center staff on

MID-CONTINENT COMPREHENSIVE CENTER

The Mid-Continent Comprehensive Center at The University of Oklahoma College of Continuing Education serves the states of Arkansas, Kansas, Missouri, and Oklahoma. It is one of 16 RCCs funded by the U.S. Department of Education to help build the capacity of SEAs to implement the current provisions of ESEA and support districts and schools in efforts to improve student outcomes. The Mid-Continent Comprehensive Center helps states meet educational demands such as program evaluation, curriculum mapping, American Indian education, and the needs of English language learners.

Title II and HQT policy requirements as well as the ability to disseminate timely and relevant information and resources to states about these topics. This process of relationship building can serve as a model for the design and implementation of collaborative efforts to reach a common goal.

A lesson learned from this effort and related technical assistance efforts is that states should think more *intentionally* about aligning their identified areas of need with a set of manageable, measurable strategies that address those areas accordingly.

Finally, the TQ Center learned that these technical assistance efforts create the "time" and "space" for the right people to come together, away from daily responsibilities, and work as a team on a specific matter. This time and space also help to alleviate the "silo effect" that often occurs in SEAs. SEAs commonly comprise a collection of offices that largely work independently of one another. These "silos" can create barriers for staff to think systemically about key human capital issues. For example, state efforts to recruit more talented teachers to staff high-need schools may be a responsibility of the teacher licensure department as well as the educator professional development department, both of which may operate independently with separate data systems. The Mid-Continent Comprehensive Center has consistently provided opportunities for collaboration across offices or departments, and reform conversations have been more successful as a result of joining forces on human capital management strategies. Such a systemic approach is required to address issues such as the equitable distribution of teachers.

TQ CENTER RESOURCE

The TQ Center continues to provide assistance to states to support thinking beyond compliance issues toward the implementation and use of state plans, especially equity plans, as a lever for policy change to improve overall teacher quality. For example, at the 2008 What Works Conference, the TQ Center hosted a technical assistance workshop titled "Moving State Highly Qualified Teacher (HQT) Plans From Compliance to Implementation." For more information, refer to the workshop webpage (http://www.tqsource.org/whatworks/WWC08buildingCapacity/Description_HQT.pdf).

RESOURCES FOR THE IMPLEMENTATION OF FEDERAL TEACHER QUALITY POLICY

Innovative Ideas and Practical Suggestions for Improving the State Highly Qualified Teacher Plans
http://www.tqsource.org/webcasts/hqtPlans/

To help states improve their state plans for HQTs in every classroom, the TQ Center and the U.S. Department of Education teamed up in September 2006 to offer a webcast specifically for RCCs and state Title II, Part A and HQT representatives. Panelists discussed the purpose of the state plans and the elements of a successful plan; provided overall impressions of the state plans submitted in July 2006; and identified several resources, best practices, and innovative strategies for states to consider as they work toward improved plans.

Supporting Progress in Meeting the HQT Requirements of NCLB
http://www.tqsource.org/webcasts/supportingProgress/

The TQ Center hosted this live, interactive webcast in April 2008. The webcast supported RCCs and SEAs in their efforts to move from planning to action through the implementation of their state HQT plans.

National Issue Forum: "From Planning to Action: Implementation of the Highly Qualified Teacher Plans"
http://www.tqsource.org/issueforums/hqplans/

In March 2007, the TQ Center hosted a national issue forum to help RCCs and SEAs move another step forward with the implementation of their state plans to ensure that HQTs are available for all students—regardless of where they live or the school they attend.

2007–2010 Highly Qualified Teachers and Improving Teacher Quality State Grants (ESEA Title II, Part A) Monitoring Reports
http://www.ed.gov/programs/teacherqual/hqt07/index.html

The U.S. Department of Education posts monitoring reports for each state. These reports review the progress that states are making in two key areas of the law:

- Meeting HQT requirements, as specified in the current provisions of ESEA (having 100 percent of students taught by a teacher who holds at least a bachelor's degree, has obtained full state certification, and has demonstrated knowledge in the core academic subject he or she teaches).
- Using Title II, Part A funds to prepare, retain, and recruit quality teachers and principals so that all students achieve high academic standards and reach their full potential.

Monitoring Protocols for the 2009–2010 Monitoring Cycle
http://www.ed.gov/programs/teacherqual/performance.html

The U.S. Department of Education posts the monitoring protocols for LEAs and SEAs.

Model Components for Revised State HQT Plans
http://www.tqsource.org/ModelComponentsMatrix.pdf

The TQ Center has developed model components for revised state HQT plans to help states working to improve their plans. This document captures the components submitted by the nine states that successfully met all six criteria outlined by the U.S. Department of Education.

Revising the Equitable Distribution Component in Your State's Plan for Highly Qualified Teachers
http://www.tqsource.org/TeacherDistributionPlanningTool.pdf

This 2006 equitable distribution data tool is focused on areas where states had the most difficulty in their state plans. Although revised state plans have already been submitted, this enhanced version may continue to be useful to states as they take stock of the types of data collection, analysis, and reporting procedures they currently have; consider the types of data they may want to collect in the future; and determine future analysis and reporting procedures.

NATIONAL COMPREHENSIVE CENTER FOR TEACHER QUALITY

Enhancing Teacher Preparation, Development, and Support

CHAPTER 2

CHAPTER 2 Enhancing Teacher Preparation, Development, and Support

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INTRODUCTION

The U.S. education system currently comprises approximately 3.8 million elementary and secondary teachers (National Center for Education Statistics, 2009a), 115,000 school principals (National Center for Education Statistics, 2007b), and 400,000 professional support personnel such as counselors, speech-language clinicians, and school psychologists (National Center for Education Statistics, 2007c). These educational professionals serve approximately 50 million students (National Center for Education, 2009a) distributed across 97,000 elementary and secondary schools (National Center for Education Statistics, 2009b). The preparation, development, and support of these teachers and other education personnel is an enormous enterprise, involving thousands of additional personnel at approximately 1,300 institutions of higher education (IHEs) and alternative preparation agencies.

Despite substantial investments in teacher preparation, most new teacher-education graduates and the principals who supervise them rate their preparation as inadequate, too theoretical, and insufficient to meet the needs of diverse learners (Levine, 2006). These negative evaluations can be interpreted in several ways. One obvious implication is that teacher preparation programs need to be improved.

Another interpretation is that initial teacher preparation should be viewed as an interim step toward the *development* of a highly qualified and effective teacher, not a culminating experience. Teacher preparation should be seen as a lifelong enterprise rather than a one-time experience that spans a few years. Indeed, physicians, dentists, attorneys, engineers, accountants, pharmacists, and other professionals are expected to be up-to-date on the latest research, standards of practice, and legal requirements in their respective fields. The complex nature of teaching requires similar career-long preparation that is linked explicitly to content and procedural knowledge and built on a high-quality foundation grounded in science and practice. Coherent initial preparation programs and career-long continuing education that involve coursework and other knowledge acquisition opportunities applied through field experiences and enhanced through mentoring, induction, and coaching are critical to improved teacher effectiveness and student achievement (Alter & Coggshall, 2009).

This chapter presents a discussion of teacher preparation, professional development, and induction and mentoring of new teachers as ways of enhancing teacher qualifications and improving student achievement. In addition, the following National Comprehensive Center for Teacher Quality (TQ Center) resources, services, and projects are highlighted:

- Innovation configurations that emphasize evidence-based instructional practices for improving student outcomes
- The *TQ Connection*, an online resource that provides information about teacher preparation and support and facilitates interactions with experts in evidence-based practices in specific domains
- Higher education consortia to implement evidence-based practices in teacher preparation programs
- TQ Center induction assistance in Wisconsin through a collaborative relationship with the Great Lakes West Comprehensive Center and the Wisconsin Department of Public Instruction

The chapter concludes with a discussion of a collaborative initiative of the New York Comprehensive Center (NYCC) and the TQ Center to establish a community of practice to prepare New York City teachers.

Much of this work is based on the following questions:

- How can evidence-based practices be thoroughly integrated into teacher preparation programs at IHEs and alternative agencies?
- What kinds of professional development and support do regional comprehensive centers (RCCs) and state education agencies (SEAs) need in order to implement research findings about teacher experience and content knowledge?

TEACHER PREPARATION

There are approximately 1,300 teacher preparation programs in the United States, and they vary considerably in institutional characteristics, student enrollment, faculty resources, student qualifications, and number of graduates. Approximately 185,000 new teachers complete these preparation programs each year, most of them graduating from traditional education programs at IHEs.

In addition, significant shortages in some specialty areas—mathematics, science, and special education—have spurred the development of alternative programs designed to attract experienced professionals into the teaching profession. In 2007, all 50 states and the District of Columbia offered alternative routes to teaching certification through 485 alternate route programs (National Center for Alternative Certification, 2007). Teachers who were alternatively certified make up one third of all new teachers hired (National Center for Alternative Certification, 2007).

TQ CENTER RESOURCE

The TQ Center's Teacher Preparation State Policy Database (http://www2.tqsource.org/prep/policy/index.asp) contains information relating to state policy on undergraduate, graduate, and alternative teacher preparation. It provides information about policies in all 50 states, the District of Columbia, and the four U.S. territories as well as information on legislation and state board rules and regulations.

Research has confirmed that effective teachers make a difference in student achievement (Wright, Horn, & Sanders, 1997). Evidence from multiple studies indicates that teacher effect accounts for approximately 20 percent of the variation in achievement gains among students (Nye, Konstantopoulos, & Hedges, 2004). However, recently published research indicates little or no difference in academic achievement between students taught by teachers who were trained through traditional programs versus those taught by teachers who were trained through alternative route programs (e.g., Ballou & Podgursky, 2000; Constantine et al., 2009; Darling-Hammond, 2000; Laczko & Berliner, 2001; Miller, McKenna, & McKenna, 1998). Wide variations in the design of teacher preparation programs, including pedagogy and content preparation, clinical experiences, and credit requirements, have contributed to the difficulty in linking teacher preparation routes to student achievement (Wilson, Floden, & Ferrini-Mundy, 2001).

The factors that ultimately produce significant teacher effects on student achievement gains are not well understood (Corcoran & Evans, 2008). In addition, little is known about what makes some teachers effective the first day on

the job while others struggle and develop over time (Goe, 2006). According to a number of studies, most of the demographic variables (e.g., teacher race and gender) or teacher education factors (e.g., degree level, the selectivity of the colleges from which they graduate) have inconsistent and relatively insignificant influences on student outcomes (Constantine et al., 2009). Variables such as teachers' cognitive aptitude likewise have inconsistent and insignificant effects.

Teacher effectiveness does appear to be enhanced by years of experience (i.e., four years or more), verbal ability, or content knowledge, especially in mathematics (Andrew, Cobb, & Giampietro, 2005; Corcoran & Evans, 2008; Darling-Hammond, 2000). The causative factors of teacher effects are not well understood (Corcoran & Evans, 2008). One likely explanation for differential teacher effects beyond content and experience is effective instructional practices (Raudenbush, 2009).

Disagreements about what constitutes a highly effective teacher and what is required for adequate preparation, coupled with limited and inconclusive teacher preparation research, have triggered increased scrutiny of and attention to teacher preparation practices. Three laws greatly influence teacher preparation and support and provide the framework for measuring the quality of these efforts nationwide:

- The Elementary and Secondary Education Act (ESEA), as reauthorized by the No Child Left Behind (NCLB) Act
- The 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA)
- The Title II accountability provisions of the Higher Education Act

Together, these laws have created federal standards for highly qualified teachers (HQTs), mandating that they have solid content knowledge and are able to interpret data and use evidence-based practices to meet the learning needs of a diverse set of students. Current provisions of ESEA and IDEA encourage and, in some cases, require the use of instruction that is based on scientific research. This emphasis supports the consistent use of instructional methods that have been proven effective and have stimulated changes in how teachers are prepared and supported.

Teacher preparation programs are challenged to improve both the quantity and quality of their graduates (Hassel, Walter, & Hayden, 2002). To meet federal and state accountability

TQ CENTER RESOURCES

The TQ Center has produced a research synthesis and companion TQ Research & Policy Brief on the link between teacher preparation, teacher practices, and student outcomes in special education.

The research synthesis, titled *The Teacher Preparation → Teacher Practices → Student Outcomes Relationship in Special Education: Missing Links and Next Steps* (Goe, 2006), provides an in-depth review of the existing research and identifies gaps in this research.

The brief, titled *The Teacher Preparation → Teacher Practices → Student Outcomes Relationship in Special Education: Missing Links and New Connections* (Goe & Coggshall, 2007), examines the relationship between preservice teacher preparation, teacher inservice practice, and outcomes for students with special needs. In addition, the brief provides specific recommendations for program improvement and further research.

TQ CENTER RESOURCES

The TQ Center worked collaboratively with the Office of Special Education Programs (OSEP) 325T grantees to develop two webcasts for the faculty at IHEs:

- *The Use of Innovation Configurations to Improve Teacher Preparation in Reading Instruction* (http://www.tqsource.org/webcasts/innovationConfigurations/)
- *The Use of Innovation Configurations to Improve Teacher Preparation in Critical Areas* (http://www.tqsource.org/webcasts/innovationConfigurations_CriticalAreas/)

OSEP 325T grantees are responsible for revising and upgrading the preparation of special education teachers. TQ Center staff demonstrated the use of the innovation configurations during the two webcasts, which were designed to inform participants and address questions. Faculty from 42 IHEs with 325T grants participated in the webcasts. These and other TQ Center webcasts may be accessed at **http://www.tqsource.org/eventswebcasts.php**.

requirements, teacher preparation programs also must ensure that all new teachers not only are highly qualified but also that they are armed with the content and pedagogical knowledge to effect increased student achievement levels. Student demographic and achievement data and instructional strategies from scientifically based research are two factors that likely will affect teacher preparation practices.

Student Demographic and Achievement Data

New teachers often report challenges in coping with disruptive behaviors in classrooms and difficulties meeting the needs of diverse learners whose achievement levels vary widely (Bland & Hecht, 1997; Miller & Losardo, 2002). Special-needs students, who make up approximately 35 percent of the overall student population, are more likely than other students to present achievement and behavior challenges to teachers (Kirsch, Braun, Yamamoto, & Sum, 2007). It is important, therefore, to understand the demographic and achievement data of this population in order to more fully prepare and support the teachers who serve them.

Special-needs students are defined as those at risk for poor educational outcomes and those who have disabilities (Smartt & Reschly, 2007). Students with disabilities account for approximately one third of the special-needs student population. Special-needs students may come from any racial or ethnic group; however, students from the two largest minority groups in the United States—black and Hispanic students—are significantly overrepresented in the special-needs student population: 16 percent and 20 percent of all U.S. students, respectively (Donovan & Cross, 2002). The vast majority of students of color, however, are not special-needs students.

TQ CENTER RESOURCE

The TQ Center interactive data tools (http://www.tqsource.org/dataTools.php) allow users to generate customized data tables about teacher preparation using data from the Schools and Staffing Survey and the Common Core of Data.

An effective means for gaining insight into at-risk and special-needs student achievement is to examine achievement scores on the National Assessment of Educational Progress (NAEP) by group (see National Center for Education Statistics, 2007a). NAEP achievement levels are reported as *below basic*, *basic*, *proficient*, and *advanced*. According to Smartt and Reschly (2007), most students performing below the basic level in achievement domains such as reading and mathematics are considered to be at high risk for the following outcomes:

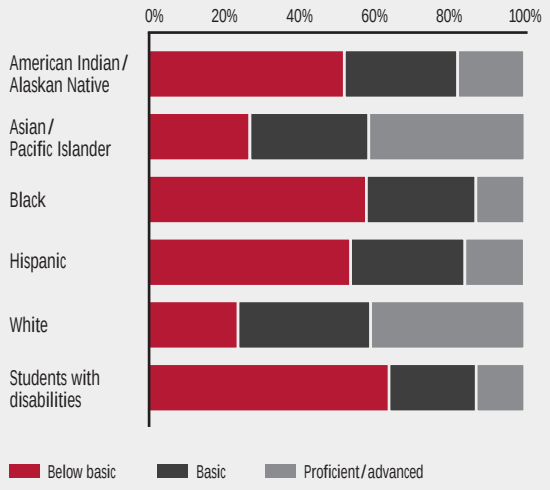
- Poor reading and mathematics skills at the onset of adulthood
- Failure in challenging academic subjects
- Noncompletion of high school
- Lower participation in postsecondary vocational and educational opportunities
- Inadequate incomes to support families
- Law violations

Black, Hispanic, and American Indian/Alaskan Native students and those with disabilities are markedly overrepresented in *below basic* levels of reading and mathematics achievement at Grade 4 and higher levels (National Center for Education Statistics, 2007a). Reading results for Grade 4 students on the 2007 NAEP are summarized by demographic group in Figure 2.1. Poor reading performance on the NAEP is significantly correlated with high school completion rate by group. Notably, more than 20 percent of students in the white and Asian/Pacific Islander groups also achieved below the basic level in reading on 2007 tests.

The special-needs population also has contributed significantly to the changing composition of the general education classroom. Students with disabilities as defined by IDEA accounted for 11.4 percent of the estimated 6- to 17-year-old population in the United States in the 2007–08 school year.

Figure 2.1

Achievement Levels of Grade 4 Students on the 2007 NAEP Reading Test, by Group



Source: National Center for Education Statistics (2007a, pp. 54–55)

Currently, approximately 57 percent of students with disabilities are placed within general education classrooms for more than 80 percent of the school day (Office of Special Education Programs, 2007). A recent review indicated that 95 percent of general education classroom teachers have or had a student with a disability in their classroom (Office of Special Education Programs, 2001).

Likewise, a recent roundtable report by the National Clearinghouse for English Language Acquisition (Ballantyne, Sanderman, & Levy, 2008) indicated that "a majority of teachers have at least one English language learner [ELL] in their classroom" (p. 9). The sharp increase in the number of ELLs (a 57 percent increase in the last decade) and growth in the number of students living below the poverty level further exemplify the changing demographics in U.S. classrooms (Ballantyne et al., 2008; Kirsh et al., 2007; School Data Direct, 2007).

TQ CENTER RESOURCE

The TQ Center's *TQ Connection* (http://www.tqsource.org/connection/index.php) is an online resource designed to provide current strategies and research-based practice and policy to assist teacher preparation programs as they evolve to meet the needs of teachers. This online resource is designed to support educators through content-rich resources and a discussion forum. The *TQ Connection* includes resources on assessment, classroom management/behavior, inclusive practices, instructional strategies, and reading/literacy.

The success of education reform, therefore, depends, in large part, on the success of teachers and their ability to meet the learning needs of a diverse student population. Current and future teachers need the capacity to use evidence-based strategies in their instruction so that all students can learn. If classroom teachers are to be effective, the preparation programs that train them must be of high quality as well.

Scientifically Based Instructional Strategies

The current provisions of ESEA and IDEA established accountability and reporting requirements for teacher qualifications and the equitable distribution of teachers. However, as previously mentioned, links between the characteristics of highly qualified teachers (HQTs) and student achievement are, in large part, weak or inconclusive. Currently, 95 percent of classes are taught by HQTs (U.S. Department of Education, 2009); however, 30 percent of U.S. schools failed to meet adequate yearly progress requirements as specified in the current provisions of ESEA. Moreover, the pattern of least qualified and least experienced teachers being assigned disproportionately to students at risk for poor educational outcomes continues, despite efforts to ensure the equitable distribution of teachers. Students who struggle to achieve, including those with disabilities, need highly qualified and effective teachers in order to ensure access to and progress in the general education curriculum.

TQ CENTER RESOURCES

Tips & Tools Key Issues contain strategies and resources to support RCCs, SEAs, and other education stakeholders as they address various aspects of educator quality. These searchable documents allow a user to focus on specific approaches or strategies related to educator quality through targeted resources and examples. Examples of topics include the following:

- *Improving Student Outcomes in General and Special Education With Effective Classroom Management Practices* (http://www2.tqsource.org/strategies/multitieredSystems/TQClassroomManage.pdf)
- *Improving the Preparation of School and District Leaders* (http://www2.tqsource.org/strategies/leadership/ImprovingLeaderPrep.pdf)

Evidence-Based Practices. Significant findings on effective teaching practices are clearly emphasized in the current provisions of ESEA, which stress the implementation of scientifically based instructional practices, particularly in early reading (NCLB, Title I, Part A, Section 1001[9]). The term *scientifically based*

has evolved to *evidence-based* because of concerns about the narrow perception of the former and the excessively limited research paradigms in the education field that meet scientifically based criteria. Evidence-based practices are those producing statistically and practically significant results that can be replicated in independent investigations, using research methodology that permits cause-effect inferences. A growing body of empirical evidence identifies specific teaching interventions that are more likely than others to improve student achievement (e.g., Kavale, 2005). General and special education teacher-preparation programs need to emphasize the importance of the ability to implement these evidence-based practices with fidelity.

Response to Intervention. Similarly, response to intervention (RTI), a framework encouraged within IDEA and gaining increased national acceptance, seeks to prevent academic failure through earlier intervention, frequent measures of student progress, and progressively more intense interventions based on student needs (Reschly & Bergstrom, 2009). Much like other strategies, RTI's success rests largely on the effectiveness of the intervention and the fidelity of its implementation. Therefore, teacher preparation programs and professional development activities that deliver explicit instruction on evidence-based strategies, coupled with supervised practice that includes direct and immediate feedback, provide the foundation for successful RTI implementation in the classroom and improved student achievement.

Effectiveness of Teacher Education Faculty. The qualifications, experience, and knowledge base of the teacher preparation faculty are often overlooked aspects of these programs. Many teacher preparation professionals have large gaps in knowledge of and experience with evidence-based practices in basic areas such as reading and mathematics (Joshi et al., 2009; National Mathematics Advisory Panel, 2008; Reschly, Holdheide, Smartt, & Oliver, 2007; Walsh, Glaser, & Wilcox, 2006). Teacher education faculty and professional development providers also need expanded continuing education opportunities, especially those that target the knowledge and practice domains they are expected to teach but that are not part of their expertise or recent experience.

Recognizing that evidence-based practices likely account for at least part, and perhaps most, of the teacher effect on student achievement (beyond experience, content knowledge, and the critical role of teacher preparation), the TQ Center has offered events, resources, publications, and tools that foster the implementation of these instructional practices within teacher preparation programs. These TQ Center activities and resources, which are highlighted throughout the chapter, support the integration of evidence-based practices within teacher preparation coursework and professional development activities.

Innovation Configurations. Many of these resources are based on the TQ Center's innovation configurations—tools designed to assist continuing professional development providers and IHE faculty in examining how evidence-based practices are represented in their current coursework and supervision. Innovation configurations also define critical components of education programs and levels of implementation; they have been used for many years to enhance the integration of educational reforms and improvements (Hall & Hord, 1987).

Evidence-based practices have been identified in meta-analyses (e.g., Kavale, 2005; Vaughn, Gersten, & Chard, 2000), reports of national experts that apply rigorous criteria to the

selection of research results (e.g., National Mathematics Advisory Panel, 2008; National Reading Panel, 2000; Snow, Burns, & Griffin, 1998), and government agency reports (e.g., Institute of Education Sciences, n.d.). These practices were used to develop five innovation configurations in the critical areas of reading, classroom organization, behavior management, inclusive services, and learning strategy instruction. Additional innovation configurations in secondary-level applications of RTI principles and ELL teacher preparation are currently under development.

Use of innovation configurations advances collaborative practices and encourages examination of the similarities, differences, and gaps among programs. The results provide reliable information on current practices and can be used as the basis or rationale for policy and programs at the state and university levels (e.g., programs requiring dual certification, development of general and special education cohort teacher preparation programs). Moreover, these results can be used to target training needs of faculty at institutions of higher education (Joshi et al., 2009).

Innovation configurations also strengthen and integrate field experiences by determining the degree to which evidence-based instructional and behavioral strategies are taught in required coursework and applied in supervised practice with feedback. Their focus on practical application through field experiences directly corresponds with recommendations from the Office of Postsecondary Education (2005) to strengthen and integrate field experiences in sound teacher-preparation programs.

The complex nature of teaching requires a strong body of general and specialized knowledge that is grounded in practice—for real students, situations, and classrooms (Berry, Montgomery, & Snyder, 2008). A report by the TQ Center and the New York Comprehensive Center (Alter & Coggshall, 2009) also supports this concept by suggesting that teaching be viewed as a clinical practice.

PROFESSIONAL DEVELOPMENT

Unlike many other economically advanced societies, the United States generally does not provide the sustained, in-depth, context-specific professional development that is common in other nations. The typical continuing professional development program for teachers in this country includes single-occasion, large-group presentations rather than job-embedded professional development (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). Sound principles of professional development rarely are applied in continuing professional development for teachers (Corcoran, 1995; Heibert, 1999).

Birman, Desimone, Porter, and Garet (2000) surveyed a nationally representative sample of teachers who participated in professional development funded by Title II of ESEA as reauthorized by NCLB. Their report identified three structural features (form, duration, and participation) and three core features (content focus, active learning, and coherence) that establish the context for high-quality professional development. Their results indicate that the number of teachers who participate in professional development addressing all six characteristics is moderately low. Of the respondents, 79 percent indicated they had participated in the "traditional" form of professional development (one day or short term), and most teachers (64 percent) had participated in activities that lasted only a week or less. In terms of collective participation, relatively few teachers (20 percent) had participated in professional development with colleagues within their school or department.

TQ CENTER RESOURCE

The TQ Center Teacher Professional Development State Policy Database (http://www2.tqsource.org/mb2dev/reports/Reporttq.aspx?id=2068) contains information relating to state policy on professional development. It provides information about policies in all 50 states, the District of Columbia, and the four U.S. territories as well as information on legislation and state board rules and regulations.

NCLB, Title IX, Section 9101(34) defines *high-quality professional development* as activities that achieve the following goals:

- "Improve and increase teachers' knowledge of the academic subjects the teachers teach, and enable teachers to become highly qualified"
- "Are an integral part of broad schoolwide and districtwide educational improvement plans"
- "Improve classroom management skills"
- "Are high quality, sustained, intensive, and classroom focused…and are not one-day or short-term workshops or conferences"
- "Advance teacher understanding of effective instructional strategies that are based on scientifically based research"
- "Are developed with extensive participation of teachers, principals, parents, and administrators"

Research affirms that although teachers play a critical role in improving student achievement, they often feel ill-prepared to meet the instructional demands placed upon them (e.g., Bland & Hect, 1997; Goldhaber & Brewer, 1997; Levine, 2006; Miller & Losardo, 2002; Nye et al., 2004). Well-designed professional development is imperative for improved academic achievement and school completion.

Teacher attrition complicates efforts to improve student achievement. Nearly 50 percent of new teachers leave the profession within the first five years of teaching (National Commission on Teaching and America's Future, 2003). Ineffective teachers, both those who stay and those who leave the profession, represent a significant financial investment. According to the Alliance for Excellent Education (2005), teacher attrition can be extremely costly:

> A conservative national estimate of the cost of replacing public school teachers who have dropped out of the profession is $2.2 billion a year. If the cost of replacing public school teachers who transfer schools is added, the total reaches $4.9 billion every year. (p. 1)

Even more disturbing is the loss in academic achievement because of the frequent assignment of inexperienced and poorly supported teachers to students most at risk for poor educational outcomes (Mendro, 1998; Nye et al., 2004; Sanders & Horn, 1995; Tennessee Department of Education, 2007; Wright et al., 1997).

INDUCTION AND MENTORING

As teachers transition from preparation to the classroom, a variety of supports can make the process smoother and more effective. Perhaps chief among them is access to a high-quality induction program that includes a mentoring component as well as other forms of support, such as reduced workloads, orientation seminars, and external networks. Teacher induction is an important policy area that the TQ Center has actively advanced as part of its mission to strengthen the quality of teaching. High-quality induction and mentoring programs can make or break a teacher's success in the classroom.

Although induction is not universally embraced (Isenberg et al., 2009), most research has shown that it positively influences teacher retention, sense of efficacy, and actual effectiveness. Smith and Ingersoll (2004) reported that induction programs can reduce teacher attrition, but the effect depends upon the program characteristics. For example, teachers who had access to a mentor in their subject area were approximately 30 percent less likely than teachers without a mentor to leave the profession after their first year. Though less statistically significant, some evidence suggests that teachers who have access to a mentor outside their subject area are somewhat less likely than those without any mentor to leave teaching. Data also support providing new teachers with common planning time or scheduled collaboration with other teachers in their field. These induction activities reduced new teachers' risk of leaving the profession by about 43 percent (Smith & Ingersoll, 2004).

The number of states requiring some type of teacher induction program has increased markedly during the past several decades. Only eight states required induction in 1984, whereas nearly two thirds of states required induction by 1999 (Corcoran, 2007). Nearly half of the states fund statewide induction and mentoring programs for new teachers and require that certain standards for the selection, training, and matching of mentors and new teachers be met (Editorial Projects in Education, 2008).

The nature of state policies on induction varies. For example, in Illinois, a Beginning Teacher Induction Pilot Program has been in place since 2006. In addition, the Illinois Teacher Induction Policy Team has developed standards for high-quality induction programs. In Wisconsin, induction is required statewide during the five-year initial educator period rather than confined to a small-scale pilot program. The state has developed a Promising Programs induction model that districts are required to incorporate into their early educator support system. The model promotes ongoing orientation, support seminars, a qualified mentor for each initial educator who has been trained to provide input into his or her confidential formative assessment, and an administrator who has been trained in the state's Professional Development Plan team process. Alaska is unique in that its statewide mentoring program is full release, allowing master teachers to engage in full-time mentoring. Statewide induction programs recently have been initiated in several other states, including Alabama, Arizona, and Oregon. In other states, such as Minnesota, state policies encourage districts to provide induction and mentoring, but no requirements are in place. Induction programs for school principals and other administrators also have been developed in California, Maine, and Rhode Island.

Clearly, induction is an area of great interest to states and regions throughout the country, an interest that is generally supported by research. As states continue to advance teacher induction, the TQ Center intends to support them by providing technical assistance and research-based evidence through the RCCs. Research (e.g., Humphrey, Wechsler, & Bosetti, 2007; New Teacher Center, 2007; Smith & Ingersoll, 2004) supports the following components of high-quality induction and mentoring programs:

- **Program Support.** Stable, timely, and adequate resources should be made available to sustain a high-quality induction and mentoring program.
- **Program Goals.** Induction and mentoring programs should aim to provide new teachers with intensive and specific guidance for improving their instructional practice, and more broadly, to advance the professionalization of teaching.

- **Program Length.** Induction should include orientation that precedes the start of the academic year and mentoring that lasts for at least two years.
- **Interconnectedness With Other Supports.** An induction program should not be seen as a stand-alone intervention but rather as a means of seamlessly connecting the learning that takes place in preparation programs and the ongoing, school-based professional development that teachers receive throughout their careers.
- **Program Components.** In addition to providing mentoring, an induction program should include time for coplanning and collaboration among teachers in the same subject areas and membership in external support groups or new-teacher networks.
- **Mentor Selection.** The selection of mentors must be rigorous and based on explicit qualities (e.g., strong communication skills, trustworthiness), and teachers and mentors should teach in the same field.
- **Support for Mentors.** If mentors are to effectively support new teachers, they need certain supports, including ongoing professional development on effective mentoring.
- **Interactions Between Mentors and New Teachers.** Sanctioned time should be set aside for mentors and new teachers to interact on a regular (e.g., weekly or biweekly) basis; this interaction should be connected to the development of a schoolwide learning community.
- **Basis of Learning.** The guidance provided to new teachers should be based on data and professional teaching standards.
- **Involvement of Administrators.** The involvement and support of school administrators is crucial, and their roles and responsibilities should be clearly defined.
- **Involvement of Other Stakeholders.** All stakeholders should be involved in the development of a new-teacher induction and mentoring program.

In addition to induction, other supports for new teachers include supportive working conditions and, in particular, supportive administrators. A recent national survey of first-year teachers (National Comprehensive Center for Teacher Quality & Public Agenda, 2007) revealed that 35 percent of new high school teachers were dissatisfied with their school administration's provision of leadership and guidance, and 31 percent were dissatisfied with their administration's provision of adequate instructional resources. At the elementary school level, 21 percent and 15 percent of new teachers, respectively, felt the same way.

This widespread dissatisfaction with the support provided by school administrators to new teachers is significant because 43 percent of teachers who leave their school or the teaching profession reported that "poor administrative support" was a major factor in the decision (National Commission on Teaching and America's Future, 2003, p. 16). School leaders not only should ensure that adequate classroom resources are available, but they also should provide supports that shield new teachers from students who present difficult behavior challenges and from overly involved and other difficult parents. New teachers should be granted "novice status" and a reduced workload to help ease the transition into the classroom. Finally, strong performance management systems should be in place to identify areas of potential growth for novice teachers and guide their professional development.

The TQ Center has worked to ensure that the teaching profession accommodates its newest members. This effort has involved research on the generational characteristics of the largest source of new teachers, Generation Y, as well

as the specific policies and practices that are attractive to new teachers currently and as they think about longer term careers in education (Behrstock & Clifford, 2009). Innovations and advances in high-quality induction programs have been highlighted by researchers, SEAs, and practitioners at the TQ Center's What Works Conferences and national issue forums.

TQ CENTER RESOURCES

Tips & Tools Key Issues provide strategies and resources on the following topics:

- **Working Conditions:** See *Identifying Professional Contexts to Support Highly Effective Teachers* (http://www2.tqsource.org/strategies/het/ProfessionalContexts.pdf).
- **Recruitment:** See *Recruiting Science, Technology, Engineering, and Mathematics (STEM) Teachers* (http://www.tqsource.org/publications/KeyIssue_RecruitingSTEM.pdf) and *Recruiting Teachers for Urban and Rural Schools* (http://www.tqsource.org/publications/KeyIssue_RecruitingUrbanRural.pdf).
- **Leadership:** See *Identifying How Highly Effective Leaders Support Teachers* (http://www2.tqsource.org/strategies/het/HighlyEffectiveLeaders.pdf).

More recently, the TQ Center has been helping RCCs and SEAs to think systemically about their teacher quality work and to view teacher induction as part of a larger, integrated policy spectrum that spans the educator career continuum. Along this continuum, induction strengthens, aligns with, and relies upon the policies and practices taking place within teacher preparation and professional development programs and other supports for new teachers.

SUMMARY

Effective teacher preparation, continuing professional development, and support of new teachers are critical to attaining the nation's goals of improving educational achievement, overcoming achievement gaps, and fostering economic development that raises living standards for all citizens. Without direction guided by strong evidence, however, the debate about traditional versus alternative teacher preparation programs and what constitutes successful teacher preparation will not be resolved. Concerted efforts to identify evidence-based teacher preparation practices and the unique contributions that each component makes to teacher effectiveness are warranted (Humphrey & Wechsler, 2006; Wilson et al., 2001).

Literature on teacher preparation (e.g., Berry et al., 2008; Hassel et al., 2002) has identified the following levers for change within teacher preparation programs:

- All major stakeholders participate in planning and evaluating a teacher preparation program.
- Regular feedback on candidate performance is used to form program improvements.
- Coherence between the program mission, state standards, coursework, and field experience is evident.
- Integration of evidence-based teacher strategies receives high priority.
- Faculty and staff development is addressed.
- Early and intensive field experiences are provided.

The work reviewed in this chapter contributes to these recommendations by identifying and supporting the adoption of evidence-based practices and improving the performance and persistence of new teachers. Much work still needs to be conducted to facilitate the adoption of these practices including research linking these practices to improved student achievement and improved educational outcomes in U.S. schools.

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INNOVATION CONFIGURATIONS

Education professionals need to have the capacity to implement evidence-based instructional strategies. The TQ Center offers tools designed to evaluate current teacher preparation and professional development practices by determining the degree to which scientifically based research strategies are taught, observed, and applied within these activities. The following resources highlight extensive research and federal policies and offer innovation configurations designed to examine the content of teacher preparation coursework and activities.

Effective Classroom Management: Teacher Preparation and Professional Development
http://www.tqsource.org/topics/effectiveClassroomManagement.pdf

This TQ Connection Issue Paper provides an innovation configuration that outlines effective classroom management strategies and highlights the specific content and level of training that should be addressed in preservice teacher preparation. Recommendations for improving teacher preparation are included.

Barriers to the Preparation of Highly Qualified Teachers in Reading
http://www.tqsource.org/publications/June2007Brief.pdf

Both IDEA and the current provisions of ESEA, which have established scientifically based reading research as the basis for the adoption of scientifically based reading instruction, are discussed in this TQ Research & Policy Brief. Current practices are reviewed, and recommendations for improving the teaching of reading in IHEs, SEAs, and other related agencies are provided. The brief also features an innovation configuration to improve the implementation of scientifically based reading instruction.

Teacher Preparation to Deliver Inclusive Services to Students With Disabilities
http://www.tqsource.org/publications/TeacherPreparationtoDeliverInclusiveServices.pdf

This TQ Connection Issue Paper presents an innovation configuration that outlines the key components of inclusive services that should be incorporated into teacher preparation at the preservice and inservice levels. The innovation configuration can be used to evaluate general and special education teacher preparation and professional development programs.

Teacher Preparation and Professional Development in Effective Learning Strategy Instruction
http://www.tqsource.org/publications/EffLearnStrtInstructionIssuePaper.pdf

This TQ Connection Issue Paper offers an innovation configuration that depicts the knowledge and skills that teachers must acquire to be competent instructors of learning strategies. It also makes recommendations for teacher training programs.

Innovation Configurations Training Sessions

The TQ Center held frequent training sessions to address how the use of innovation configurations can help teacher preparation programs provide adequate training in research-based instructional strategies. Participants found the sessions informative and practical.

Testimonials

> "Excellent session, great presenters. This information will impact my work as a faculty member involved in personnel prep. Very relevant!"
>
> *—Participant at U.S. Office of Special Education Programs (OSEP) Project Director's Innovation Configuration Workshop*
>
> "Excellent presentation, thank you! We should have more such presentations…very practical!"
>
> *—Participant at the 325T grantees webinar hosted by the TQ Center and OSEP*

TQ CONNECTION

The TQ Center is committed to improving teacher quality and has developed tools and resources designed to support the efforts of RCCs, SEAs, and IHEs as well as other stakeholders invested in teacher preparation and professional development activities. The *TQ Connection* is an online resource designed to provide information, content-rich resources, and a space for interactive dialogue regarding the most current evidence-based strategies and policies in education for those who prepare and support teachers. The *TQ Connection* resources and discussion topics directly align with the U.S. Department of Education's Office of Special Education Programs (OSEP) priorities and link to information that supports the preparation of general and special education teachers.

The *TQ Connection* online discussion feature provides opportunities to explore issues regarding teacher preparation, with new content added on a bimonthly basis. Discussion topics are linked to *TQ Connection* resources and focus on aspects of teacher preparation and making connections between general and special education. Participants can access resources, ask questions of content experts, share ideas, and engage in lively discussions. Each discussion highlights current research and practice, poses implementation questions, and provides recommendations and considerations for teacher preparation. The following *TQ Connection* resources are available.

TQ Connection Issue Papers

Effective Classroom Management: Teacher Preparation and Professional Development
Regina Oliver, Vanderbilt University
http://www.tqsource.org/topics/effectiveClassroomManagement.pdf

Teacher Preparation and Professional Development in Effective Learning Strategy Instruction
Jean Schumaker, Ph.D.
http://www.tqsource.org/publications/EffLearnStrtInstructionIssuePaper.pdf

TQ Connection Discussion Papers

***Teacher Quality for Multitiered Interventions* (Overview Document)**
Daniel J. Reschly, Ph.D., Vanderbilt University
http://www.tqsource.org/strategies/multitieredSystems/TQMultitiered.pdf

Necessary Assessments Within a Response to Intervention Model
Kimberly Gibbons, Ph.D., St. Croix Education District
http://www.tqsource.org/forum/documents/GibbonsPaper.doc

What Teacher Educators Need to Teach About Evidence-Based Instruction and Response to Intervention
Martha Hougen, Ph.D., Texas Reading First Higher Education Collaborative
http://www.tqsource.org/forum/documents/cedBasedInstructionalStrategiesHougenPaper.pdf

RTI: Prevention/Early Intervention Strategies for Challenging Behavior
Frank Gresham, Ph.D., Louisiana University
http://www.tqsource.org/forum/documents/RTI_EarlyInterventionPrevention2.pdf

***RTI: Implementation in Secondary Schools* (Article Summary)**
Mark Shinn, Ph.D., National-Louis University
http://www.tqsource.org/forum/index.php/topic,41.0html

Prevention of Disproportionate Special Education Representation Using Response to Intervention
Daniel J. Reschly, Ph.D., Vanderbilt University
http://www.tqsource.org/forum/documents/TQ_Issue_Paper_RTI_Disproportionality.pdf

The *TQ Connection* website can be accessed at **http:www.tqsource.org/connection/index.php**.

Testimonial

> "The Southeast Comprehensive Center (SECC) at [the Southwest Educational Development Laboratory] has found great value in the *TQ Connection* discussion board. The *TQ Connection* discussion board has been a valuable resource for me in gathering information to address rapid response requests from SECC states. In July 2008, one of our client states requested a rapid response on [RTI] practices for Tiers II and III, in addition to research findings on pupil/teacher ratios for optimal or maximum small-group instruction. I immediately posted this query on the *TQ Connection* discussion board and received useful and relevant information from an expert, Dr. Dan Reschly, on this topic. The *TQ Connection* discussion board is an excellent venue for online discussions of various topics that are pertinent to student and school improvement, as well as an online forum to query experts on specific topics."
>
> *—Ada Muoneke, Program Associate, SECC at the Southwest Educational Development Laboratory*

THE HIGHER EDUCATION CONSORTIUM: A MODEL FOR COLLABORATION

The TQ Center is building relationships with RCCs and SEAs to develop statewide higher education consortia to implement evidence-based practices in teacher preparation programs. These consortia are modeled after the highly successful Texas Reading First Higher Education Consortium (HEC), directed by Martha Hougen, Ph.D., of the Vaughn Gross Center for Reading and Language Arts at the University of Texas at Austin. The Texas HEC developed a process to increase the implementation of scientifically based reading instruction principles in Texas teacher education programs. The TQ Center reading innovation configuration (Smartt & Reschly, 2007) was used to define the content of scientifically based reading.

The process used by the Texas HEC to engage college and university faculty in improving scientifically based reading instruction in teacher preparation is noteworthy. All participation was voluntary. The number of members grew from 15 in 2000 to 300 in 2008. Participants included education administrators and teacher educators from Texas IHEs and alternative agency teacher preparation programs. Texas HEC success was evaluated by assessing the following data:

- Changes in the integration of scientifically based reading instruction into coursework and professional development
- Evaluation of syllabi
- Observations of instruction by peers
- Student surveys conducted before and after teacher preparation

Substantial changes in the implementation of scientifically based reading instruction were documented during this evaluation.

The Texas HEC staff presented written materials regarding scientifically based reading instruction and encouraged participants to share resources. Ongoing professional development seminars, resources, and collaborative opportunities were provided for sharing syllabi, handouts, and research. Although similar programs exist (e.g., Washington Association of Colleges for Teacher Education, Florida Literacy and Reading Excellence), the Texas HEC is unique in that it recognizes the training needs of faculty and specifically targets teacher educators. The Texas HEC also has been highlighted in the *TQ Connection* through a weeklong online discussion board led by Dr. Hougen. During this discussion, participants had opportunities to ask questions, share resources, and learn about ways to integrate evidence-based instructional strategies into teacher preparation.

The TQ Center is pilot-testing a state-based higher education consortium focusing on the implementation of evidence-based practices in teacher preparation. One state is participating in a pilot program this year. Several states have expressed interest in participating; depending on the success of the pilot program, additional consortia with RCCs, SEAs, and IHEs will be established in future years. The TQ Center plans to build on the success of the Texas HEC as well as broaden the scope to include evidence-based practices in domains other than reading.

Reference

Smartt, S. M., & Reschly, D. J. (2007). *Barriers to the preparation of highly qualified teachers in reading*. Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved September 3, 2009, from http://www.tqsource.org/publications/June2007Brief.pdf

TQ CENTER INDUCTION ASSISTANCE IN WISCONSIN

The TQ Center has helped to advance teacher induction and mentoring policies by working with the Great Lakes West Comprehensive Center and the Wisconsin Department of Public Instruction (DPI) for the past several years. By building a collaborative relationship over time, the TQ Center has been able to provide research-based information and technical assistance to help guide decisions about induction in Wisconsin.

What Works Conference

Representatives from the teacher quality division within Wisconsin DPI and Great Lakes West staff first met at the TQ Center's First Annual What Works Conference, "Increasing Student Achievement in High-Need Schools Through Teacher Quality," in November 2006. The goal of the What Works Conference is to bring together staff from RCCs and SEAs throughout the country to collaborate on research-based strategies for improving teacher quality.

Research to Action Forum

In early 2007, Regional Educational Laboratory (REL) Midwest hosted a Research to Action Forum in collaboration with the Great Lakes East Comprehensive Center, Great Lakes West Comprehensive Center, North Central Comprehensive Center, and the TQ Center. This meeting served to further solidify the relationship between Great Lakes West and Wisconsin DPI, and a future focus on induction and mentoring was agreed upon as a result of this meeting through the promotion of understanding Public Instruction (PI) 34 and its impact on induction statewide.

Review of Survey Instrument

Great Lakes West asked in the spring of 2007 for the TQ Center to review the content of a survey instrument designed to assess the state's initial educator and mentor grant program and the perceptions of initial educators and their mentors. In spring 2008, the TQ Center again reviewed the initial educator and mentor survey for alignment to research on induction and mentoring. This instrument has had long-term value, as DPI has been able to reuse it for ongoing assessments of the impact of PI 34 law on educators.

Initial Educator Data Seminars and Research Seminars

Having assisted in the reviews of the survey instrument, the TQ Center then helped to prepare materials for and support the analysis of the survey data at the initial educator data seminar in summer 2007. Following the 2007 seminar, the TQ Center responded to a request from Great Lakes West and Wisconsin DPI for information about other states' policies on induction and mentoring. The initial educator data seminar again took place in summer 2008, and again survey data analysis was a central focus. This data seminar was then immediately followed by a research seminar that brought together additional evidence about induction and the related policy areas of preparation and professional development. These events assembled a community of scholars and leaders committed to improving Wisconsin's PI 34 law on initial educator support. The TQ Center again helped to prepare materials for the data seminar, and Gretchen Weber, senior program associate at Learning Point Associates, delivered one of

the opening presentations, titled "Teacher Induction: A National Perspective." Weber addressed the national dialogue regarding teacher induction, federal policies, approaches that various states throughout the country have adopted, and recommendations for effectively moving teacher induction forward. TQ Center staff also assisted during the 2008 data seminar by facilitating focused work groups.

Throughout this effort, TQ Center staff members have participated in formal and informal conversations about how the research base on induction can inform the decisions of those working in Wisconsin to advance this policy area. The TQ Center continued to provide induction assistance in Wisconsin at the 2009 data seminar through a presentation titled "Beyond Highly Qualified: Highly Effective Teachers in Every Classroom."

Testimonial

> "The support Great Lakes West got from the TQ Center was critical for the success of the Wisconsin project. By reviewing the state's induction and mentoring survey, we were confident that questions on the survey would give the state the information it needed to help districts and schools improve their induction and mentoring programs. As we planned the stakeholder meeting with the state, we turned to the TQ Center to help us identify research, confident that it would identify high-quality research. The research became the foundation for the state's messages on induction and mentoring. Wisconsin staff said that with the help of both the TQ Center and Great Lakes West, the state had the support and credibility needed to improve induction and mentoring."
>
> *—Linda Miller, Director, Great Lakes West Comprehensive Center*

Building a Community of Practice Among IHEs to Prepare New York City's Teachers

Jamie Alter, *New York Comprehensive Center*
With **Jane G. Coggshall, Ph.D.,** *Learning Point Associates*

CONTEXT AND RATIONALE FOR THE INITIATIVE

The New York Comprehensive Center (NYCC), along with the TQ Center, is spearheading an initiative to establish effective partnerships among high-level representatives from institutions of hgher education (IHEs), the New York State Education Department (NYSED), the New York City Department of Education (NYCDOE), and the New York City Office of the Mayor. The central goal of this initiative is to enhance collaboration among New York City's key stakeholders in order to improve the preparation of teachers for culturally and linguistically diverse urban classrooms. Underlying this goal is the belief that better prepared teachers will ultimately improve student learning.

NYCC launched this effort in part to address the conclusion of the organization's needs-sensing activities in New York City, which found that the link between teachers' preservice preparation and inservice work must be strengthened. Moreover, NYCC staff noted that many local IHE faculty members did not have the opportunity to communicate their interests and priorities to key policymakers and SEA staff, nor did local IHE faculty interact with other IHEs in and around New York City that prepare teachers. In response, NYCC sought to catalyze a network among IHE faculty to collaborate, share resources, and adjust their instruction and materials in accordance with the best available research. The collaboration also was designed to strengthen teacher preparation programs by enhancing the connection among NYSED, IHEs, and local education agencies. NYCC sought technical assistance from the TQ Center in providing rigorous research and evidence-based practices to inform the IHEs and policymakers involved in the initiative.

NEW YORK COMPREHENSIVE CENTER

As one of 16 RCCs, NYCC is funded by the U.S. Department of Education to help build NYSED's capacity to implement the current provisions of ESEA and support districts and schools in efforts to improve student outcomes. NYCC supports the following initiatives: adolescent literacy, comprehensive assessments, e-learning, teacher quality, mathematics, parental involvement, and statewide systems of support.

THE IHE/TEACHER QUALITY INITIATIVE FOR THE GREATER NEW YORK CITY AREA

NYCC began its initiative in June 2007 by contacting the nine City University of New York (CUNY) institutions that prepare teachers. NYCC initially convened this particular group of deans and program chairs because the members already had a structure and organization that bound them together; working within this structure seemed more feasible than trying to bring together disparate organizations. Although it made sense to pilot the collaboration with an "affinity group," NYCC knew that CUNY deans and program heads did not have ongoing opportunities to deeply engage with and learn from other teacher preparation programs within the CUNY system.

The CUNY deans and program chairs, designated as the "CUNY Collaborative," met regularly throughout the year to critically analyze how they prepare teachers and to identify common areas of concern. Conversations were wide-ranging and

allowed NYCC and CUNY participants to fully investigate many of the key challenges in teacher preparation and discuss out-of-the-box solutions. Between meetings, NYCC ensured that work group members stayed focused by providing high-quality research and best practices in relevant areas of teacher preparation.

At the culmination of the first year in May 2008, NYCC, in collaboration with the TQ Center, hosted a one-day spring seminar titled "Preparing Teachers to Teach in the 21st Century." It was an unusual gathering of the nine CUNY deans and chairs of teacher preparation programs, faculty members, NYCDOE officials, NYSED officials, and staff from the Office of the Mayor.

Two discussion leaders, or "provocateurs," from the TQ Center's advisory Higher Education Council were enlisted to kick off the seminar and help lead the conversation. Daniel Fallon, Ph.D., director of higher education programs at the Carnegie Corporation, and Albert Bennett, Ph.D., Harold Washington Professor of Sociology and Education at Roosevelt University, asked participants to think critically about the way they prepare teachers for the challenges posed by 21st century students and develop actionable recommendations for collaboratively addressing these challenges. TQ Center staff helped facilitate the small-group discussions throughout the day. Through these lively conversations, members were able to hear each other's perspectives on the issues and share how those issues were being addressed in their respective organizations. As a result of these seminar discussions, the CUNY Collaborative agreed to focus its effort on improving the clinical preparation of teachers.

Building on the success of the CUNY Collaborative, NYCC expanded the work to include deans and program chairs from 11 selected teacher preparation programs at independent IHEs in and around New York City. After two meetings of the "Independents," it was clear that this group had the same major interest as the CUNY Collaborative—namely, enhanced clinical teacher preparation. Therefore, it seemed both practical and beneficial to merge the efforts. Such a collaborative effort between the CUNY Collaborative and the Independents would create a truly wide-ranging conversation about teacher preparation in and around New York City that incorporated the interests and ideas of both public and private institutions.

Members of both the CUNY Collaborative and the Independents recommended that smaller work groups be formed to tackle interrelated aspects of the work of improving the clinical preparation of teachers. This recommendation led to the formation of three IHE work groups that focused on the following topics: improving partnerships between IHEs and K–12 schools, enriching clinical experience across multiple pathways, and enhancing mentoring and support for preservice and new teachers. The IHE work groups comprised deans, chairs, professors, and clinical faculty from 20 teacher preparation programs and representatives from NYSED and NYCDOE. They met over the course of five months to develop a brief that outlined the current state of teacher preparation, provided a set of guiding principles, and discussed three specific recommendations for improving the practice-based training of educators.

To inform the efforts of the IHE work groups, NYCC planned a second seminar with the help of the TQ Center. This seminar provided a special opportunity for the group members to listen to and engage with experts and to gain new knowledge and insights to inform their work. The event, titled "Teacher Preparation: Easing the Transition from Preservice to Inservice," focused directly on the three areas that the work groups were tackling, namely

strengthening partnerships, improving clinical experiences, and enhancing mentoring and support. The main feature of the morning session was a discussion by a panel of outside experts who debated key issues related to the conference theme. All of the panelists had firsthand experience with programs dealing with one or more aspects of the transition from preservice to inservice. In the afternoon, attendees engaged in energetic small-group discussions led by the panelists.

In addition, staff from NYCC and the TQ Center collaborated to develop an issue paper (Alter & Coggshall, 2009) describing what teaching as a clinical practice profession means to many of those in the field of teacher education. The issue paper encouraged members of the IHE work groups to examine the current structure and content of teacher preparation in light of the essential elements for preparing a skilled clinician. It also provided examples of programs striving to incorporate clinical teacher preparation principles that are grounded in practice.

The IHE work groups had the opportunity to submit their completed brief to a task force convened by the New York State Board of Regents, the policymaking body in New York. This task force is charged with providing policy recommendations to improve teacher preparation, recruitment, and retention in urban communities within the state. Although the task force has yet to complete its recommendations, it has indicated that the IHE work groups' suggestions will help to inform its final product.

EARLY OUTCOMES OF THE INITIATIVE

NYCC and the TQ Center have surveyed key participants from each entity in order to evaluate the initiative. Early outcomes have been favorable. Approximately 70 percent of participants at the initial CUNY meetings rated them as highly relevant, and more than half rated them as useful for informing their work. About 70 percent of the participants also supported additional periodic meetings. In an open-ended question on the evaluation survey, one participant noted that it was "important that the NYCC serves as a mouthpiece for the schools of education." Another asked to "please keep this discussion going—it might take a while to get clarity—but please stick with us." The respondent stated that the group had a "large job ahead—multifaceted…but hopeful." Participants warned, however, that the initiative must "stay focused" and avoid "mission creep" by "focusing on some specific plan of action to consider."

The initial spring seminar also generated an encouraging response. Approximately 70 percent of participants reported that both the large-group discussion and the small-group discussions led by staff from NYCC and the TQ Center were of high quality or very high quality and that the seminar was relevant to education policy and practice in their work. More than half indicated that they would use insights gained from the seminar to inform their work. Most important, approximately 80 percent of participants felt that the seminar encouraged interactive discussion, and 70 percent believed that it facilitated meaningful conversations and collaboration with persons from different educational organizations.

Participants particularly enjoyed the format of the seminar. According to one participant, the "small venue for addressing this important issue worked well and enabled [the audience] to share their perspectives and recommendations effectively." Participants also agreed that this was the first venue where they had the opportunity to meaningfully interact with staff from other teacher preparation programs and policymakers. One respondent appreciated and valued "meeting stakeholders from different parts of the system with similar concerns and

challenges." Another felt that "the cross-pollination of ideas across institutions was very insightful and creative." Participants came away from the seminar reporting that they had "learned a great deal about policy, challenges facing other stakeholders, and the intersection between the work of others and [their own]."

The most positive early results were garnered from work group meetings during which participants created a major deliverable—a set of recommendations for action to be taken by the New York State Board of Regents on key aspects of teacher preparation. Participants described work group meetings as "well organized and well structured, useful, and interactive, with good pace and momentum." One participant was particularly impressed by the "great deal of knowledge and experience around the table." Another noted that this "was a powerful group representing multiple organizations" and that "the strength of the meeting was the comprehensive feedback across represented institutions." Most important, participants emphasized that meetings were "productive" as well as "task oriented and focused on an outcome that will be practical and useful to the Regents." They were particularly eager to have a "clear product to produce" that would provide "effective solutions to the [major teacher preparation] problems." Participants appreciated that the meetings emphasized "concrete, achievable recommendations," as opposed to being a simple free-ranging discussion.

The results of the second spring seminar exceeded those of the initial seminar, and the event proved to be informative for the IHE work groups. Approximately 90 percent of participants felt that the seminar strengthened their understanding of innovative and best practices in teacher preparation and that such information would help move their work forward in concrete ways. Another 80 percent reported that the seminar better prepared them to carry out their responsibilities. In addition, more than 85 percent of participants indicated that the opportunities for networking and small-group discussions provided a useful process for fostering teamwork and collaboration between and among regional stakeholders.

These initial results suggest that the structures for collaboration put in place by NYCC and the TQ Center have begun to generate productive and more trusting relationships among participants. In addition, they have encouraged the sharing of best practices, challenges, and solutions among teacher preparation programs and between teacher preparation programs and policymakers. Moreover, they have provided evidence that the NYCC initiative has laid the groundwork for a true community of practice that participates in collective action to achieve mutual goals.

LESSONS LEARNED

Other RCCs are encouraged to follow NYCC's lead in building collaborations if there is a need in their region. Following is a list of lessons that NYCC and the TQ Center learned in the process:

- Develop a rapport with the group early on to develop trust and credibility, especially with participants at the highest level in an organization. Start with in-person or phone conversations with potential participants, and then invite them to attend planning meetings for the wider initiative.
- Delimit the focus of the collaborative early in the process. There are many issues to tackle, and not all can be dealt with in depth. Create a definite agenda, and ensure that planning committees understand and agree on it.

- Implement mechanisms for consensus, building among various parties with divergent views and interests. It is helpful to first identify and evaluate a variety of options, allow participants to individually prioritize these options, and then tally the results.
- Determine a product or deliverable that the group will create as a result of their efforts to make participation more meaningful. As worthy as talks and discussions are, they do not move an initiative forward and they do not sustain participants' interest.
- Maintain communication between meetings by holding discussions in an online environment, assigning tasks, and disseminating research.
- If possible, break into smaller groups to deeply tackle an issue and then report back. Within small groups, focused investigations of an issue can take place.
- Start small, but gradually involve as many stakeholders as possible in the conversation.
- Strongly encourage participants to identify commonly held misconceptions and think outside the box.
- Encourage broad participation among all those who attend meetings.

NEXT STEPS

The currently constituted partnership is only the first step in an initiative to enhance the knowledge base of deans, chairs, and faculty about best practices in teacher preparation and strengthen the collaboration among IHEs, NYSED, and NYCDOE to achieve the goal of improving teacher preparation. Thus far, the initiative has grown from small private conversations among IHEs to a public dialogue that has the potential to influence state-level urban teaching policies. Such policies will ultimately improve the distribution of high-quality, well-prepared, and effective teachers in the New York City region.

NYCC and the TQ Center are striving to create an effective, sustainable collaborative structure among IHEs, with strong leadership that regularly meets to discuss significant challenges in supporting teacher quality and to determine and implement solutions to these challenges. This collaborative represents a collective voice for teacher preparation in the greater New York City area that can advocate for research-based improvements in the teaching profession. NYCC and the TQ Center also intend to preserve an effective collaborative relationship among IHEs, NYSED, and NYCDOE that promotes shared policymaking in the area of teacher preparation.

REFERENCE

Alter, J., & Coggshall, J. (2009). *Teaching as a clinical practice profession: Implications for teacher preparation and state policy* (Issue Brief). New York: New York Comprehensive Center; & Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved September 3, 2009, from http://www.tqsource.org/publications/clinicalPractice.pdf

NATIONAL COMPREHENSIVE CENTER FOR TEACHER QUALITY

The Equitable Distribution of Teachers: Strategies and Results

CHAPTER 3

CHAPTER 3 The Equitable Distribution of Teachers: Strategies and Results

Laura Goe, Ph.D., *ETS*

INTRODUCTION

Research has consistently indicated that students in high-poverty, high-minority schools are less likely than other students to meet learning goals (Goodwin, 2000; Lee, 2002; Lee & Burkam, 2002). Effective teachers are essential to closing achievement gaps because students who struggle academically need help from their teachers to succeed. In addition, research has demonstrated that minority students and students from low-income families are more likely to be taught by teachers who are less experienced, are working with emergency permits, have less education, and are teaching subjects for which they are unqualified (Carroll, Reichardt, & Guarino, 2000; Darling-Hammond, 2002; Goe, 2002; Hanushek, Kain, & Rivkin, 2004a; Ingersoll, 2002; Lankford, Loeb, & Wyckoff, 2002; Marvel, Lyter, Peltola, Strizek, & Morton, 2007; Peske & Haycock, 2006; Scafidi, Sjoquist, & Stinebrickner, 2007; Useem & Farley, 2004).

The federal government is particularly focused on the equitable distribution of highly qualified teachers (HQTs) across all types of schools and districts, as evidenced in the provisions of the Elementary and Secondary Education Act (ESEA), as reauthorized by the No Child Left Behind (NCLB) Act. The law requires that states identify and address the inequitable distribution of highly qualified, experienced teachers and "ensure that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, or out-of-field teachers" (NCLB, Title I, Part A, Section 1111[b][8][C]). The goal of the law is to make certain that schools with high percentages of minority students and schools in high-poverty areas are as likely to employ highly qualified, experienced teachers as schools with few minority students and schools in more affluent areas.

The importance of this goal was reiterated in early 2009 through the inclusion of equitable distribution of effective teachers as an assurance in the American Recovery and Reinvestment Act (ARRA). ARRA further supports this goal through the provision of funding opportunities for state efforts to facilitate the equitable distribution of teachers.

This chapter focuses on the challenges faced by state education agencies (SEAs) in addressing the equitable distribution of teachers. It includes a review of issues related to obtaining the data needed to inform and direct state efforts and a discussion of design and implementation procedures for policies and incentives to improve teacher distribution. Suggestions are offered for improving teacher recruitment, hiring, and placement; teacher preparation; teacher retention; and support for new teachers. Changes in funding strategies and thorough evaluation efforts also can contribute to a more equitable distribution of teachers.

Two states, Delaware and Tennessee, have taken different approaches to address these issues. The Delaware Department of Education conducted a survey of teachers in targeted schools and interviewed administrators and human resources staff in order to better understand the barriers to equitable distribution in that state. The Tennessee Department of Education used its sophisticated data system to evaluate the distribution of effective teachers, then conferred with staff in six districts about data, hiring practices, stakeholder involvement, professional development, and working conditions. These efforts are highlighted at the end of this chapter.

CAUSES OF INEQUITABLE DISTRIBUTION

Potential causes of inequitable distribution can be used to frame the discussion about solutions, as presented in this chapter. States must be able to identify the conditions that have contributed to their challenges in order to effectively respond to them. Some of these conditions, along with possible solutions and challenges, are indicated in Table 3.1.

Table 3.1. Conditions of Inequitable Distribution: Solutions and Challenges

Condition	Possible Solutions	Challenges
Lack of candidates or insufficient labor market across *all* schools in a particular area, rather than just hard-to-staff schools (e.g., across rural areas)	• Consider a cohort placement design (such as the Teach For America cohort model) that involves sending in a team of teachers who have been prepared together for the challenges. • Boost the supply of all teachers in a labor market through grow-your-own strategies, such as providing financial supports and incentives for promising high school graduates in high-poverty urban and rural areas so they can pursue college and a career in teaching. • Create incentives for teachers in urban and rural areas, such as offers of assistance with housing, childcare, and transportation.	• Keeping these teachers in the labor market (e.g., in rural areas).
Inability to recruit candidates for certain schools	• Restructure district hiring practices to ensure that high-poverty, high-minority schools get an early opportunity to recruit candidates. • To increase the number of applicants in select schools, use monetary and nonmonetary incentives: ▪ Improved working conditions ▪ Excellent leadership ▪ Reduced class size or teaching load ▪ Monetary bonuses for HQTs in shortage areas ▪ Signing bonus with a three-year commitment ▪ Pay above the base rate ▪ Relocation bonus ▪ Higher pay for teaching in high-need schools ▪ Opportunities for mentoring, peer support, and professional development ▪ Time and support for participating in teacher learning communities ▪ Housing allowances or subsidized teacher housing ▪ Mileage subsidies for rural teachers and train or bus pass reimbursement for urban teachers ▪ Perquisites such as gym memberships and childcare subsidies	• More experienced teachers (who also are more likely to be highly qualified) often have seniority transfer rights, meaning agreements will have to be crafted at the state or district level to ensure that these rights do not exacerbate inequitable distribution. • Incentives, whether paid directly to teachers or provided to reduce class size or implement other school-level changes, will require identification and allocation of additional resources for specific schools.

Condition	Possible Solutions	Challenges
Inability to retain teachers	(The types of supports suggested for recruitment also may be helpful in retaining teachers.)	• These incentives may help to keep some, *but not all*, teachers in schools. Those with a desire to teach close to where they live may not be influenced by these incentives.
Inequitable quality of teachers	• Provide mentoring and professional development that is targeted to the specific needs of teachers with poor performance. • Arrange for these teachers to observe in master teachers' classrooms and be observed by master teachers, followed by time for discussion and reflection about instructional strategies and practices.	• Differentiated professional development requires accurate identification of a teacher's weaknesses as well as support and training programs that address those weaknesses. • Providing mentors and release time for master teachers is resource intensive.

A CHALLENGE FOR STATES: OBTAINING THE RIGHT DATA

Data Collection

Resolving inequities in the distribution of qualified teachers is challenging for most states because they typically have little or no experience with identifying or tracking the distribution of teachers. Prior to the implementation of the current provisions of ESEA, collection of data on equitable distribution was not a federal or state requirement. Most states have had to modify their data collection and analysis systems to meet federal reporting requirements and effectively respond to challenges.

Lack of coordination also has complicated data collection. Some states are compartmentalized, with agencies divided into "silos" that focus on a specific activity without careful coordination with other departments and agencies. In fact, one reason why many states have struggled to identify distribution problems is that teacher data collected by different agencies for different purposes are organized or formatted in various ways, making the merger of databases problematic. States can benefit from working closely with local education agencies (LEAs) when designing and implementing plans for improving teacher distribution; these agencies can evaluate local conditions and identify the strategies that most likely will improve teacher distribution.

WHAT DATA SHOULD DISTRICTS AND STATES COLLECT WHEN PRIORITIZING SCHOOLS THAT NEED ASSISTANCE WITH TEACHER DISTRIBUTION?

Student Characteristics

- Achievement levels (schoolwide)
- School-level percentages
  - Race
  - Eligibility for free or reduced-price lunch
  - Disabilities
  - English language learners

Teacher Characteristics (Individual)

- Highly qualified status
- Years of teaching experience (new, experienced)
- Degree(s)
- Salary grade (usually a function of years of experience and degrees plus credits)

School Information

- Average class size
- Average teacher salary
- Average years of teaching experience
- Percentage of vacancies each year (vacancies divided by approved full-time equivalent [FTE] positions)
- Years of administrator experience

Data on the Impact of Efforts

Another challenge for states is determining which efforts have been effective. Unfortunately, although a variety of policy options and incentives have been proposed by states to address inequities, evidence of their success is limited. Provisions for evaluating the success of these policies and incentives are typically not included in their equity plans; therefore, the information needed to determine which programs are most effective is not available. Even when improvements in the distribution of teachers are seen in a particular district, it may not be possible to link these improvements to specific actions taken by the district. For this reason, there currently are few examples of proven strategies to increase equitable distribution. The strategies may be effective, but the data necessary to determine that efficacy are lacking.

STATE PLANS FOR ADDRESSING EQUITABLE DISTRIBUTION

In 2006, states crafted equity plans as part of their revised HQT state plans. In these equity plans, states had to identify districts in which teachers were inequitably distributed according to the poverty and minority statuses of the schools and indicate steps they would take to alleviate this inequity. The lack of clear definitions for terms such as *high-poverty* and *high-minority* created problems, however. The U.S. Department of Education left it up to the states to define these terms, and many states struggled to identify those schools and districts that should be included in their efforts to address inequitable distribution. Confusion also emerged about whether a single rule should be applied consistently across all regions or whether the percentage of students from low-income families or the percentage of minority students might be interpreted differently in rural and urban settings. Technical concerns also surfaced because

only a few states had data systems that were sufficiently detailed to yield accurate information about school-level teacher distribution by highly qualified and experienced status.

In addition, although district staff may have been aware, either anecdotally or through systematic data collection (e.g., via exit interviews or surveys), of the reasons for poor teacher retention in high-need schools, most state staff had little or no access to this information when their equity plans were being written. Thus, little concrete information was available for developing the targeted incentives, policies, and supports that most likely would alleviate the retention problem.

This limitation was apparent in the first round of state plans. National Comprehensive Center for Teacher Quality (TQ Center) staff were tasked with analyzing the state equity plans and later assisted in revising them. Through this process, TQ Center staff found that states generally lacked information about which districts faced the greatest challenges in terms of inequitable distribution and why teachers left their positions or the profession at higher rates in particular schools or districts.

Finally, although research has shown that minority students and students from low-income families are more likely to be taught by teachers who are less qualified and experienced, no proven strategies for rectifying these inequities have been offered. As a result, most states crafted equity plans that were vague—not only in terms of where inequities existed in the state but also regarding specific steps they would implement to rectify those inequities. States tended to list a number of strategies without describing how they would accurately identify the schools and districts that should be targeted for assistance or how they would implement more recruitment programs (e.g., Troops to Teachers, Teach For America, other recruitment efforts).

TQ CENTER RESOURCES

Tips & Tools Key Issues present strategies and resources to support regional comprehensive centers, SEAs, and other education stakeholders as they address various aspects of educator quality. These searchable documents allow a user to focus on specific approaches or strategies related to educator quality through targeted resources and examples.

The following Key Issues relate to equitable distribution of teachers:

- *Identifying Professional Contexts to Support Highly Effective Teachers* (http://www2.tqsource.org/strategies/het/ProfessionalContexts.pdf)
- *Increasing Teacher Retention to Facilitate the Equitable Distribution of Effective Teachers* (http://www.tqsource.org/publications/KeyIssue_TeacherRetention.pdf)
- *Preparing Teachers Effectively for At-Risk Schools* (http://www.tqsource.org/publications/KeyIssue_TeacherRetention.pdf)
- *Recruiting Teachers for Schools Serving English Language Learners* (http://www2.tqsource.org/strategies/recruit/recruitingTeachersforSchoolsServingELLs.pdf)

Monitoring Visits

Subsequent to approval of state HQT plans, the U.S. Department of Education conducted monitoring visits. In the monitoring protocol used to evaluate state efforts to improve teacher quality, the U.S. Department of Education (2005) asked two key questions related to equitable distribution:

- "Does the SEA also have a plan with specific steps to ensure that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, and out-of-field teachers?
- "Does the plan include measures to evaluate and publicly report the progress of such steps?" (p. 9)

In the TQ Center document titled *Ten Early Lessons Learned From Highly Qualified Teacher Monitoring Reports* (National Comprehensive Center for Teacher Quality, 2009), a number of themes emerged, including the need for SEAs to take the following steps:

- Work closely with LEAs that have failed to meet goals for improving teacher distribution, helping them to develop and implement an improvement plan.
- Validate procedures for determining highly qualified status, particularly for alternatively certified teachers and special education teachers.
- Monitor and ensure corrective action when LEAs hire teachers who are not highly qualified.

STATE RESPONSES

A Systemic Approach to the Equitable Distribution of Teachers

Although states have made considerable efforts to address inequitable distribution, these efforts have not always incorporated a systemic approach to the problem. Various SEAs, LEAs, teacher preparation programs, and teachers unions are working diligently to ensure that all students have effective teachers. However, a lack of coordination hampers efforts to ensure equitable distribution, and working at cross-purposes—with different agendas or without clear lines of communication—may result in unintended negative consequences. Solving the inequitable distribution problem will require a concerted effort among SEAs, LEAs, and other stakeholders to adequately prepare, place, and support teachers.

Teacher recruitment, preparation, placement, support, and professional development programs all play roles in teachers' employment and ultimate success in high-need schools, as do leadership, school climate, and working conditions. A systemic approach should involve multiple coordinated strategies targeted at various points along the educator career continuum as well as school-based strategies that focus on school leadership, teacher learning communities, and working conditions.

Improving Teacher Recruitment, Hiring, and Placement

Schools in which new teachers prefer to work usually have few openings; teachers who already are there are unlikely to leave, and if there are openings, they are typically filled by transfers. Most collective bargaining agreements give preference to teacher transfers by processing these requests well before new hires are considered. In contrast, hard-to-staff schools must struggle to find sufficient numbers of teachers, especially for subjects such as secondary mathematics and science.

States and individual districts can enhance the ability of hard-to-staff schools to locate and hire the best candidates. Late hiring is one factor because teachers may take other positions in schools that are able to make

offers sooner. If hard-to-staff schools are able to make quicker hiring decisions, they may have better access to HQTs.

Another factor is getting the word out. Some districts need to adopt more aggressive, creative advertising and recruiting strategies so that desirable teachers are aware of the opportunities. Incentives also may help to attract teachers to high-need schools, but schools and districts may not be well-informed about which incentives—monetary or nonmonetary—are more likely to appeal to new teachers.

In addition, many districts are unable to find sufficient numbers of teachers who are willing to teach in high-poverty rural and urban areas. The isolation and poverty of many rural areas may be daunting, particularly to teacher candidates who grew up in more affluent, populated areas. Similarly, teachers who have little or no experience in high-poverty urban areas may find them intimidating. However, it may be possible to win over recruits with a combination of preparation for specific challenges, assurances of support, positive field experiences in similar settings, and monetary and nonmonetary incentives. (For specific incentives, see Table 3.1 on pages 74–75.)

Recent studies have provided insight on effective teacher incentives to accept positions in hard-to-staff, high-need schools. For example, Hirsch (2006) surveyed 4,200 teachers in Alabama and found that financial incentives such as state income tax credits and signing bonuses were deemed important, but nonfinancial incentives, particularly reduced teaching loads and smaller class sizes, were ranked very high. Additional support staff and planning time also were important incentives. Hirsch then compared "stayers" with "movers" and "leavers" and found that the "stayers" rated the leadership in their schools much higher than the other groups did. The "movers" gave their school leadership the

WHICH SCHOOLS SHOULD BE TARGETED FOR ASSISTANCE?

Considerable discussion has been generated during efforts to determine the "correct" percentages that qualify a school or district for assistance with teacher distribution, given that the U.S. Department of Education has left this decision up to the states. The proper identification of those districts and schools that need state support in improving teacher distribution is important because resources are limited. Resources should be spent where schools are most in need and where they will have the greatest impact on equitable distribution.

Some states have been using convenient cut-points, such as dividing schools into quartiles by percentages based on minority or poverty status and then targeting schools in the highest quartile for assistance. Other approaches for identifying districts and schools most in need of targeted interventions might be more accurate. For example, states might start by identifying the distribution of high-poverty, high-minority schools before deciding on cut-points for targeting schools for assistance. Then, hard-to-staff schools might be identified to determine where they fall in the distribution of high-poverty, high-minority schools. Resources should go first to hard-to-staff, high-poverty, and high-minority schools with unsatisfactory levels of achievement (i.e., failure to meet adequate yearly progress requirements).

lowest ratings, suggesting that leadership is a key factor in teacher retention. Although such surveys provide useful information, there is scarce evidence showing that incentives and conditions ranked highest by teachers actually affect recruitment and retention and that they are cost-effective.

Improving Teacher Preparation

Both traditional and alternative teacher preparation programs face many challenges in attracting a sufficient number of teachers to shortage subject areas. Unfortunately, these programs also may contribute to inequitable distribution; teachers who are working toward certification in these programs may enter the classroom on emergency waivers and are more likely to begin their teaching careers in high-minority, high-poverty schools (Goe, 2002). Conversely, alternative credentialing programs may attract more candidates who are interested in teaching in shortage areas (Wilson, Floden, & Ferrini-Mundy, 2001), so they are helpful in increasing the overall supply of teachers.

Until teaching candidates are fully certified and thus highly qualified to teach, however, their presence in high-poverty, high-minority schools does nothing to resolve inequitable teacher distribution. In addition, teacher preparation programs produce elementary school teachers at much higher rates than secondary school teachers with subject specialties. Currently, few incentives exist for teachers to pursue subject majors to teach at the secondary level. Also, teacher preparation programs continue to accept students who want an elementary credential, even though there is no need for more elementary teachers in many areas.

Ensuring that teachers are adequately prepared for the kinds of challenges they will face in high-need schools is another issue. Today, preparing teachers to work in challenging schools involves different strategies than those used in the past. Providing early and frequent opportunities for teacher candidates to observe and work with successful teachers in challenging schools is one possibility. Research suggests that teacher candidates value their field experiences and that such experiences may influence teacher attitudes about teaching in high-need schools (Wilson et al., 2001). Familiarizing teacher candidates with communities where they might not have considered teaching is another strategy (Cruz, 1997). Training teacher candidates to work in challenging rural or urban settings also may give them more confidence to apply for jobs in these areas.

Given the need for teachers who are able to meet the challenges in hard-to-staff schools, effective strategies may include grow-your-own programs and other endeavors that help to bring greater diversity to the teaching force. Teachers tend to prefer working in communities that are similar to those in which they attended school (Boyd, Lankford, Loeb, & Wyckoff, 2005a); thus, it makes sense to recruit potential teachers from the communities where staffing shortages occur.

Targeting Specific Subject Areas. Special education teachers have been in short supply for many years. Special education teacher candidates typically must take more courses to become certified, requiring more time and money to achieve clear credentials. Currently, the path to becoming highly qualified in special education is even more difficult because of the requirement that middle school and high school special education teachers must be highly qualified in each subject they teach. At smaller schools, especially those in rural areas, special education teachers may teach several subjects. Earning certification in each of those subjects may be financially burdensome without targeted support.

A possible solution is to provide tuition reimbursement and other financial incentives to teachers who are willing to become certified in special education. Tying reimbursement and incentives to actual employment in a special education position would ensure that the investment in training is not lost. In addition, making required special education courses easily available to teachers already in the classroom—through weekend, evening, and Internet-based sessions—might be helpful.

TQ CENTER RESOURCE

The TQ Center interactive data tools (http://www.tqsource.org/dataTools.php) allow users to generate customized data tables about teacher preparation using data from the Schools and Staffing Survey and the Common Core of Data.

Potential teachers with considerable talent in mathematics and science have many employment options, and most of them are far more lucrative than teaching. As a result, mathematics and science teachers are in short supply in many areas. In addition, the pool of teacher candidates who either speak another language or have studied another language in sufficient depth to effectively teach ELLs is limited. Similar to incentives for special education teachers, tuition reimbursement and other financial offers may improve the likelihood that teacher candidates will take coursework that prepares them for teaching in specific subjects or English classes for ELLs. Making these courses more readily available to teachers or those who wish to enter the profession may increase the numbers of HQTs in these high-need areas. However, teachers choose their subject-level and grade-level concentrations on the basis of personal preferences, and trying to steer them toward specific subjects at the secondary level may be a losing proposition unless sufficient incentives are offered to make these subjects more attractive.

Loeb and Miller (2007) found that in California, policies that reduce coursework requirements for teacher candidates have had a substantial impact on increasing the supply of teachers. Alternative routes are likely to increase the supply of teachers overall; however, the challenge is to ensure that these teachers achieve full certification quickly. Moreover, there is no guarantee that these alternative-route teachers will be any more attracted to or likely to stay in high-need schools. Furthermore, they must meet the same requirements as other teachers in order to be deemed highly qualified.

Incentives to Recruit and Retain HQTs in High-Need Schools. Districts have tried a number of incentives that provide dollars, goods, or services directly to teachers. One possibility is to offer teachers a "menu" of incentives from which they can select the most appealing options. More choices mean that more teachers are likely to find an attractive reason to work in a challenging, hard-to-staff school.

Financial Incentives From States. Most of the options noted in this chapter are district initiated, but states have tried to help by instituting loan forgiveness plans for newly graduated teacher candidates who are willing to teach in specific high-need schools. Tuition tax credits for teachers working on an additional certification or a master's degree, state-funded teacher mentoring programs, and state income tax credits also have been offered. However, state programs must be targeted to teachers who are willing to work in specific schools rather than to all teachers. Otherwise, their impact on equitable distribution likely will be minimal.

Improving Teacher Retention

Factors Contributing to Teacher Turnover. Some researchers contend that there is actually no shortage of HQTs. For example, Ingersoll (2003) has asserted that the inability of many schools to attract and retain HQTs has little to do with the overall supply. Rather, his 2001 research suggests that there are enough teachers to staff classrooms, but four organizational conditions within many schools drive away would-be teachers; the four conditions are inadequate compensation, lack of administrative support, conflict and strife within the school, and lack of teacher input into school policies (Ingersoll, 2001). He contends that the "supply" problem will continue as long as these conditions persist.

In support of Ingersoll (2001), other research has shown that teachers tend to transfer away from certain schools at higher rates and that there is a correlation between high teacher turnover and schools with certain characteristics. Transfer patterns suggest that there are "less preferred" schools (those that teachers transfer away from) and "more desirable" schools (those that teachers transfer into) (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2007; Boyd, Lankford, Loeb, & Wyckoff, 2005b; Scafidi et al., 2007). Less preferred schools usually have one or more of the following characteristics:

- They have high percentages of students who qualify for free or reduced-price lunch.
- They have high percentages of minority students.
- They have low student achievement levels.
- They are relatively distant from the communities where most teachers reside.

A study conducted in Europe showed a similar pattern for teacher "quits," with teachers moving away from schools that have high percentages of minority and special-needs students (Falch & Strøm, 2004). In addition, a number of other factors have been identified as contributing to poor retention of teachers (Ascher, 1991; Berry & Fuller, 2008; Billingsley, 2004; Elfers, Plecki, & Knapp, 2006; Guarino, Santibañez, & Daley, 2006):

- Poor working conditions (a large and varied category)
- Lack of administrative support (particularly in disciplinary matters)
- Lack of adequate preparation for challenging placements
- Lack of opportunities for professional growth
- Too much emphasis on testing
- Insufficient salaries when compared with other districts/states
- More rewarding or lucrative opportunities in other professions
- Time off from the profession for childbearing or childcare
- Family relocation due to spouse's job transfer

New-Teacher Turnover. Furthermore, research has shown that teacher mobility among schools is particularly high for newer teachers (Billingsley, 2004; Hanushek, Kain, & Rivkin, 2001; Ingersoll, 2001) and that teachers in high-need schools who are initially effective either become less effective over time or leave these schools (Tennessee Department of Education, 2007). Thus, at about the time that teachers' knowledge and practice are improved from a few years of experience, they are moving to other schools or leaving the profession (Billingsley, 2004; Hanushek, Kain, & Rivkin, 2004b; Ingersoll, 2001). With few incentives to stay in their current positions and local bargaining agreements that generally support teachers'

rights to transfer at will as they gain seniority, teachers are free to transfer to more desirable schools as soon as they are able, leaving numerous vacant positions in the less preferred schools. The vacant positions are then filled with new teachers who, lacking seniority, must accept positions wherever there are openings. This situation creates a continuing cycle of teacher turnover.

Identifying and Addressing Turnover. Unfortunately, few school districts systematically investigate why teachers leave their positions for other schools or other professions. Without this information, it is difficult to combat the factors that contribute to poor retention in particular schools or districts. Some districts do conduct exit interviews; however, the information generally is not used to identify or address factors that are within the districts' control.

Obtaining detailed information about why teachers leave, then aggregating that information to specific schools or types of schools (e.g., middle versus elementary, high-poverty versus low-poverty, high-achieving versus low-achieving) is important for targeting policies, incentives, and supports where they are likely to be the most effective. In addition, relying on information obtained from other districts or states may result in poorly targeted strategies for combating the loss of teachers because the reasons vary within and across districts and states.

Although there is certainly value in focusing on school-level conditions that contribute to teacher turnover, characteristics of the schools (e.g., locale or student demographics) cannot always be altered. Instead, better preparation and ongoing support of teachers and administrators to help them successfully meet the challenges of working in hard-to-staff schools are more realistic goals.

TQ CENTER RESOURCE

The TQ Center Teacher Recruitment and Retention State Policy Database (http://www2.tqsource.org/mb2dev/reports/reportTQ.aspx?id=1133) contains information relating to state policy on teacher compensation, recruitment and retention, and alternative certification. It provides information about policies in all 50 states, the District of Columbia, and the four U.S. territories.

Improving Support for New Teachers

Mentoring. Evidence suggests that new teachers who receive mentoring (particularly school-based mentoring by experienced teachers within the school) and other school-based support may be more effective as teachers and slightly less likely to leave their positions (Rockoff, 2008; Smith & Ingersoll, 2004). Glazerman et al. (2008) found that teachers who met with a subject coach had students whose mathematics test scores were higher, and teachers who received feedback on their teaching in the fall had students with higher mathematics and reading scores later in the year. Moreover, Glazerman et al. found that an assigned mentor, guidance in mathematics or literacy content, and professional development in content areas and instructional techniques contributed to higher teacher retention. Because these "stayers" may become highly qualified, experienced teachers in a matter of a few years, keeping them in hard-to-staff schools is an important strategy for solving inequitable distribution issues.

Formal mentoring has been most often studied, whereas the effects of more casual mentoring—with more experienced teachers being asked by the principal to provide support to a new teacher—have not been well documented. Moreover, the burden on the few

experienced teachers in high-turnover schools to informally mentor many new teachers may be cause for concern. When teachers stay in the school for only a short time, it may be more difficult for teachers to establish collegial teams, support systems, and teacher learning communities. The lack of a strong teaching community may lead teachers to seek a more stable school environment, giving them another reason to leave and perpetuating the turnover cycle.

Other Strategies for New-Teacher Support. Assigning mentors from the district (instead of the school) is one solution, although contact with new teachers would occur less frequently. In addition to mentoring, new teachers can be supported with other efforts, such as the following:

- Providing the new teachers with release time from classes to observe veteran teachers within their own schools or in other schools.
- Having veteran teachers observe new teachers and offer supportive, constructive feedback.
- Providing opportunities for new teachers to meet with veteran teachers in professional learning communities during the school day.
- Breaking the tradition in some schools of letting senior teachers choose their classes, which may result in the most challenging students being assigned to new teachers.
- Reducing class sizes for the first year or two for new teachers.
- Protecting new-teachers' planning time rather than scheduling meetings and "hallway duty."
- Offering professional development that is geared toward helping new teachers in areas that are most likely to be problems, such as classroom management.

Another strategy to lessen turnover is to place new teachers with others from the same preparation program. Teach For America has used this strategy successfully for many years, attempting to place new teachers together for mutual support, with more experienced cohorts in the same schools providing assistance and additional support to the incoming cohorts. A similar strategy has been observed in traditional preparation programs, although at present, only anecdotal evidence suggests that it has been effective. However, this partnering requires no additional spending; if it prevents even a few teachers from leaving high-need schools, it is certainly cost-effective.

Conditional Incentives. Other strategies to retain HQTs involve providing incentives that are conditional on staying in a position for a minimum of five years. For example, HQTs could receive a monetary award over a period of several years rather than in one lump sum. Unfortunately, the amount of money required to convince teachers to stay in their placements is a matter of speculation. Although nonmonetary incentives also may be useful in retaining effective teachers, reducing class sizes or teaching loads is costly. In addition, effective teachers need to be employed in schools that have been identified and targeted for support in recruiting and retaining more HQTs. Tying tuition reimbursements and financial incentives to teachers' employment in specific schools—not just employment in the profession—is critical to ensuring that these efforts make a difference.

CHANGING FUNDING STRATEGIES TO SUPPORT EQUITABLE DISTRIBUTION

The inequitable distribution of teachers may not be *caused* by the way most states and districts fund schools, but these funding strategies likely disadvantage high-poverty,

high-minority schools. In most districts, schools receive funds based on the teachers' salaries, not just the number of students in the school. Thus, schools that employ many experienced teachers with master's degrees will receive considerably more money than schools with many new teachers who do not yet have advanced degrees.

Miles and Roza (2006) suggest an alternative: student-weighted allocation, which funds schools by need rather than by the salary levels of the teachers. The advantage to high-poverty, high-minority schools under this funding scheme is obvious: High-need students would receive a greater share of the resources than they currently receive under the staff-based funding method. The additional dollars made available through student-weighted allocation could pay for incentives, professional development, reduced teaching loads, and smaller class sizes, making these schools more attractive to teachers looking for employment and increasing retention.

In a study of teacher distribution, the Tennessee Department of Education (2007) used teacher experience and degree level as indicators of the amount of resources being used by schools in the state. The study demonstrated that low-poverty schools used more resources (in terms of teacher salaries) than high-poverty schools used. Given that ARRA funds require a report of per-pupil costs for each school in a district, resource equity should be considered a key component of equitable teacher distribution.

EVALUATING EFFORTS TO IMPROVE TEACHER DISTRIBUTION

In coming years, states and districts will undertake myriad strategies, adopt multiple policies, and test a variety of incentives, independently and in combination with others, for the equitable distribution of teachers. Unless more is known about *which* programs, strategies, policies, and incentives help to improve teacher distribution, valuable resources will be wasted. An evaluation of every incentive, strategy, or policy should be conducted from the moment of inception. Collecting data on which districts, schools, and teachers participate in which programs is an essential first step. Baseline data need to be collected on the current distribution of teachers, and changes in this distribution must be accurately tracked in order to determine which strategies, policies, and incentives are most effective.

Tracking teachers affected by these efforts is essential but dependent on accurate longitudinal data. In addition, use of different strategies in similar locations is recommended in order to determine which programs yield the most promising results. Interviewing or surveying participating teachers about strategies that do not seem to be effective will provide more useful information. In some cases, the strategy may have been viable, but the implementation may have been poor. This knowledge will enable districts to develop better implementation plans and address the problems that prevented a fair test of the strategy.

Research on effective strategies for rectifying inequities in teacher distribution is almost nonexistent. Documentation of successful strategies as well ineffective strategies will guide states and districts as they continue to struggle with this issue. All students, regardless of where they live and who their parents are, deserve the opportunity to be taught by competent, caring, effective teachers, and all stakeholders must take responsibility to ensure that they are given this opportunity.

STEPS THAT STATES CAN TAKE TO IMPROVE EQUITABLE TEACHER DISTRIBUTION

1. Accurately identify the districts and schools where the greatest inequities in teacher distribution exist. This process may be challenging for many states because of data system limitations that make it difficult to determine which districts and schools should be targeted for assistance.
2. Explore with district and school personnel the reasons for inequitable teacher distribution. These reasons may vary considerably from district to district, and appropriately targeting policies and incentives requires an understanding of the local factors that contribute to the inequities.
3. Involve stakeholders in planning strategies to address inequitable distribution. Stakeholders include teachers; administrators; human resources specialists; legislators; parents; and representatives from the teachers union, the business community, and teacher preparation programs.
4. Develop targeted strategies, policies, and incentives to halt teacher turnover in schools where the greatest inequities in teacher distribution exist, ensuring that effective teachers stay in their positions and that openings are filled with highly qualified, experienced teachers whenever possible.
5. Advocate for funding to support incentives or programs to improve teacher distribution. Because funding is limited, carefully match these incentives to schools and districts.
6. Offer assistance to districts in determining whether the various incentives, policies, and strategies are having the desired effect. With this information, schools and districts will know which strategies should be continued or expanded and which ones should be discontinued.

EXAMPLES OF WHAT STATES ARE DOING TO ENCOURAGE MORE EQUITABLE TEACHER DISTRIBUTION

- States are targeting specific schools.
  - Florida prioritizes professional development for staff in schools receiving grades of "D" or "F."
  - For teachers willing to teach in certain low-performing schools, California and Texas assume the costs of student loans.
- States are using data to guide efforts.
  - Nevada, Texas, and Tennessee continuously monitor teacher distribution patterns.
  - Texas also validates HQT data reported by schools and districts.
- States are providing districts with direct technical assistance.
  - Tennessee provides districts with technical assistance in choosing strategies that best address their specific needs.
  - Georgia provides districts with detailed data that allow them to closely consider equitable distribution among schools.
  - California asks districts to include student achievement and administrative leadership in their efforts to identify and serve schools in greatest need.
- States are taking a systemic approach to equitable distribution.
  - Tennessee's equitable distribution plan is multipronged.
    - Tuition incentives are offered for courses taken by staff in targeted schools.
    - Programs prepare teachers for urban challenges.
    - Urban specialist certificate programs target highly qualified, experienced teachers (i.e., focus on retention).
    - Pathways are generated for recruitment of teachers in high-need subjects.
- States are paying attention to working conditions.
  - Texas specifically targets improvements in working conditions in its equitable distribution efforts.
- States are recruiting teachers to teach ELLs.
  - Texas has an agreement with Spain to bring in qualified teachers to address the needs of Spanish-speaking students.

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RESOURCES FOR THE EQUITABLE DISTRIBUTION OF TEACHERS

Technical Assistance Documents

- *Revising State Highly Qualified Teacher Plans: Answers to Commonly Asked Questions*
  http://www.tqsource.org/webcasts/hqtPlans/hqtFAQ.pdf

  This document addresses frequently asked questions about the requirements for state plans involving the equitable distribution of teachers.

- *Revising the Equitable Distribution Component in Your State's Plan for Highly Qualified Teachers*
  http://www.tqsource.org/TeacherDistributionPlanningTool.pdf

  The nuts and bolts of collecting, analyzing, interpreting, and displaying data to demonstrate progress toward meeting the equitable distribution components of the state plan are provided in this report.

- *Planning Tool to Provide Evidence of Progress Toward Equitable Teacher Distribution*
  http://www.tqsource.org/TeacherDistributionPlanningTool2.pdf

  This tool is a response to issues raised by states as they wrote their equity plans.

- *Ten Early Lessons Learned From Highly Qualified Teacher Monitoring Reports*
  http://www.tqsource.org/TenLessonsLearnedFromHQTMonitoringReports.pdf

  TQ Center staff provided 10 lessons learned from the first 18 visits in the second round of HQT monitoring.

- *Preparing Teachers Effectively for At-Risk Schools*
  http://www2.tqsource.org/strategies/atrisk/teacherPrepforAtRiskSchools.pdf

  This Key Issue presents strategies used in the preparation of new teachers for at-risk schools.

- *The Distribution of Highly Qualified, Experienced Teachers: Challenges and Opportunities*
  http://www.tqsource.org/publications/August2009Brief.pdf

  This brief offers a discussion of the research base on teacher distribution, details policy responses to meet the challenge in a cost-effective manner, suggests data that states should be collecting and analyzing to assess the effectiveness of new programs, and offers strategies currently being used by states to improve teacher distribution.

The Distribution of Teachers in Delaware

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INTRODUCTION

As numerous studies have demonstrated, America's teachers are not distributed equitably across schools within districts or across classrooms within schools. In other words, certain students, particularly minority students and those from low-income families, are more likely to be taught by new teachers and those who may be teaching out-of-field or without full certification. Recognizing that teachers are the most important school-based factor in student learning and prompted by the federal government's commitment to narrowing achievement gaps, states are taking action to identify and rectify inequitable teacher distribution. Federal law enjoins that states must have a plan in place "to ensure that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, or out-of-field teachers" (NCLB, Title I, Part A, Section 1111[b][8][C]).

For several years, states have been working to both understand and find solutions to the problem of inequitable distribution. However, without clear identification of the causes of inequitable teacher distribution at the local level, state policy solutions are unlikely to efficiently or effectively address the problem. In order to make the most of limited resources, states need to target the specific areas most in need through policies, technical assistance, and incentives.

Delaware is one state that has invested in better understanding its teacher distribution patterns. When officials from the Delaware Department of Education (DEDOE) examined the data they collected for their revised highly qualified teacher (HQT) state plan in 2006, they noticed some unexpected patterns in the distribution of highly qualified and experienced teachers. These officials turned to the network of federally funded regional educational laboratories (RELs), regional comprehensive centers (RCCs), and national content centers for assistance in explaining these patterns. The Mid-Atlantic Comprehensive Center (MACC), REL Mid-Atlantic, and the TQ Center collaborated to provide guidance and assistance to DEDOE in answering a set of questions about teacher distribution in the state.

Fortunately, Delaware has an excellent data system that includes longitudinal data linking students to their teachers. DEDOE had conducted analyses that helped to identify distribution patterns in districts, schools, and even classrooms. However, the data were useful only in identifying *where* problems with equitable distribution of teachers might exist; there was still a need to understand

MID-ATLANTIC COMPREHENSIVE CENTER

MACC, at The George Washington University Center for Equity and Excellence in Education, serves the states of Delaware, Maryland, New Jersey, and Pennsylvania and the District of Columbia. It is one of 16 RCCs funded by the U.S. Department of Education to help build the capacity of SEAs to implement the current provisions of ESEA and support district and school efforts to improve student outcomes. MACC's work focuses on five areas: formative assessment, uses of data, content and delivery of effective instruction, instructional leadership, and methods of professional development.

why the distribution patterns occurred. To better understand how to address inequitable distribution in Delaware, officials sought to answer the following question: What are the key factors that contribute to students' equitable access to classes taught by highly qualified and experienced teachers in Delaware?

COLLABORATION THROUGH RESEARCH

DEDOE approached MACC for technical assistance in early 2007, and MACC subsequently invited the TQ Center and REL Mid-Atlantic to provide expertise. Thus, a collaboration was formed to focus experience, skills, and resources on designing and conducting a research study of teacher distribution in Delaware. Throughout the course of the next year, the partner organizations worked together to develop and implement a strategy for answering Delaware's questions about equitable distribution.

Research Questions and Instruments for Answering Them

During early discussions among the collaborators, the following set of research questions was developed to guide the study:

- What are some of the reasons that out-of-field teaching occurs at the secondary level?
- What are the student characteristics of schools that differentially recruit and retain experienced HQTs?
- What are the working conditions that contribute to recruiting and retaining experienced HQTs?
- What are some of the local education agency (LEA) and state education agency (SEA) policies, perceived and real, that present barriers to equity? Which policies facilitate equity?

These questions were driven by issues that DEDOE staff suspected were contributing to inequitable distribution as well as by published research on equitable distribution. DEDOE was aware of studies on working conditions and other research on teacher distribution that provided insight into some of the causes of inequitable distribution. The state's own evaluation also revealed patterns in the distribution of teacher qualifications across schools and districts.

Study Design

To better understand the factors at work in teacher distribution, obtaining information from teachers was essential. Personnel at DEDOE separated the state's schools into quartiles based on poverty level. Quartile 1 contained schools with the highest income levels; Quartile 4 consisted of schools with the lowest income levels. From these data, 20 schools in 10 districts from Quartiles 2 and 3 were chosen on the basis of the schools' equity profiles, developed by DEDOE staff to evaluate the equitable distribution of teachers. Ten schools were selected because the rate of HQTs working with at-risk student subgroups in these schools was significantly lower than the rate of HQTs working with groups who were not at risk. Ten comparison schools were chosen because the rate of HQTs working with at-risk student subgroups in these schools was not significantly lower than the rate of HQTs working with groups who were not at risk.

In addition to gathering information from teachers, the team determined that school administrators and district human resources directors could provide data about teacher recruitment and assignment. The data gathered from these two sources could then be triangulated with teacher survey data to paint a more complete picture of hiring and

placement decisions (i.e., from various points of view). Subsequently, building principals from the 20 selected schools and human resources directors from the districts in which those schools are located were identified for interviews.

After it was determined that a customized survey would be administered to teachers in selected Delaware schools and a combination of surveys and interviews would be used for collecting information from school administrators and human resources directors, TQ Center staff consulting on the project combed through instruments used in other studies. Working with DEDOE staff, they identified items that would best answer the questions driving the study. REL Mid-Atlantic already had a draft survey of teacher working conditions that it had developed for New Jersey. Although many of the items on that survey were appropriate for use in Delaware, additional items needed to be developed to focus on teacher distribution.

In addition, the team decided that the input from school administrators and district human resources directors could be used to develop a complete picture of teacher assignment and transfer patterns within districts and schools. Interview protocols were developed for that information. MACC staff then conducted a brief pilot study of teachers (through surveys) and school administrators and human resources personnel (through interviews) to test the performance of the instruments. Next, TQ Center staff from ETS examined instrument performance during the pilot study using statistical and qualitative methods to analyze participant response patterns. Items that appeared to be ambiguous or easily misunderstood by the pilot study participants were revised for clarity and directness.

A scannable teacher survey containing 31 questions, including informational questions (e.g., age, ethnicity, gender, teaching experience, degree, certification, length of commute) was created. Other questions were designed to collect information about the subjects taught, class size, number of students taught by ability levels, special education status, and student race/ethnicity. Finally, teachers were asked a number of questions about hiring practices, placement decisions, new-teacher support, and teaching conditions at their school and about their career plans. Teachers also were asked to select the top three incentives from among 16 options that would entice them to move to a high-need school, as shown by the survey question in Table 3.2 (page 95).

The protocols for both the principal and the district human resources director contained a short survey to be completed prior to the interview, which included informational questions and questions about teacher assignment practices. The interview protocols allowed the interviewer to follow up on responses to those questions. The principal and the human resources director interview protocols also included a subset of questions that duplicated information on the teacher survey in order to permit triangulation of the data.

The final set of instruments was turned over to DEDOE leaders, who agreed to fund a team of two graduate student researchers and one university researcher to collect the data. TQ Center staff agreed to analyze quantitative data from the teacher survey, and a former MACC staff member undertook the analysis of the qualitative data from the two sets of interviews.

Methods and Implementation

This type of study would be impossible without quantitative data on the distribution of highly qualified, experienced teachers. Because of the availability of these data, identifying schools where troubling

Table 3.2. Survey Question

Select the *top three* incentives that would have the most influence over your decision to move to a high-need school by placing an "X" in the line next to your choices:

- — Retention bonus (a $5,000 to $10,000 bonus for staying three years)
- — Signing bonus (a $2,000 bonus for agreeing to teach for one year)
- — 3 percent to 5 percent salary increase
- — Shorter commute time
- — Housing incentives (such as mortgage tax credits, first month's rent)
- — Loan forgiveness
- — Better school leadership
- — More collegial atmosphere
- — A preferred teaching assignment (in terms of subject matter)
- — A preferred teaching assignment (in terms of grade level)
- — A more manageable course load (fewer pages, fewer classes)
- — More freedom to teach what and how I prefer
- — Bonuses linked to school performance
- — Facilities that are clean and in good repair and that provide me with adequate space for teaching and other activities
- — Sufficient resources (books, materials, paper, etc.) to teach the way I want to teach
- — Smaller class sizes

distribution patterns existed was a straightforward process. With these data, DEDOE was able to consider school-level and classroom-level teacher distribution and generate data for all of its schools, including the percentage of overall classes taught by HQTs, the number of special education classes taught by HQTs, and the number of general education classes taught by HQTs. The data also were broken down by subgroup (e.g., students from low-income families, English language learners (ELLs), Hispanic students, white students, black students). REL Mid-Atlantic staff worked with data analysts at DEDOE to generate the list of schools to be included in the study.

Interviews were conducted through May 2009. Attrition had reduced the original sample size somewhat: four of the original 20 schools opted out of the study, so their staff were neither surveyed nor interviewed.

FINDINGS FROM THE INTERVIEWS

From an examination of the 14 principal interviews and nine human resources director interviews that were conducted and analyzed, some preliminary findings and tentative assertions are discussed in the following section. Preliminary findings from analyzing the survey data follow.

Findings That Indicate the Potential Barriers to Equitable Distribution

Finding 1: Type of Vacancies. School districts have the most difficulty filling teaching vacancies at the secondary level and in the following subject areas: mathematics, science, and special education.

Finding 2: Regional Barriers. The wage tax imposed by one Delaware city is an example of a regional policy that presents barriers to equity in the schools. If teachers live outside of the city but work within its border, they must pay an additional tax on their salary.

Districts do provide extra funds to offset the penalty, but the amount is not equivalent to the tax. As a result, the tax is a real barrier to hiring teachers who want to live outside the city but work at schools located within the city's limits.

Finding 3: State Policy. A state policy that appears to present barriers to equity in teacher distribution is the very late date (June 30) for state budget passage in Delaware. One human resources director stated that the budget has "delayed the hiring process…because it's not complete until July 1, and with us not knowing what the funding was going to be like. And it's not just funding for positions, it's funding in other areas."

Finding 4: SEA Policy. Delaware's September 30 "unit count" is an example of an SEA policy that may be a barrier to equity in the schools. September 30 is the date on which districts determine final hiring units for that school year. Each human resources director indicated that this late date for the unit count diminishes the district's ability to hire HQTs and therefore negatively affects the equitable distribution of HQTs. One human resources director commented, "I think the state could certainly hold districts harmless; in other words, if they could guarantee the unit count from the previous year, at least you'd know where you're starting from."

Findings That Indicate the Potential Facilitators of Equitable Distribution

Finding 5: School-Level Incentives to Attract HQTs. Each of the 14 principals who were interviewed agreed that school-level incentives helped attract HQTs. The principals specifically cited class size, course and student load, better facilities, and extra pay for extra duties.

Finding 6: SEA Policy. The speed at which teacher licensure is processed through the SEA affects teacher distribution. The human resources directors commented that the speed facilitates equity because having up-to-date licensure information allows a district official to determine whether or not an applicant is highly qualified. In addition, the state of Delaware is efficient enough that personnel at the DEDOE are available by phone or e-mail when an applicant's credentials are in question.

Finding 7: LEA Policy. An LEA policy that facilitates equity is the awarding of small stipends to teachers who make their employment intentions known to the district's human resources office in a timely manner. Some districts give a small stipend to teachers who notify the office of their plans for the next year. This information allows human resources personnel to hire replacements who are good fits (i.e., certified, in field) for positions that will be available in the upcoming school year rather than filling spots with last-minute applicants.

PRELIMINARY SURVEY RESULTS

At the secondary level, a total of 539 middle and high school teachers responded to questions about working conditions, their views on teacher assignment within the school, what factors would most influence them to stay in their teaching positions, and what incentives would be most likely to influence them to change schools. The analysis of the survey results is currently in progress, and findings are beginning to emerge.

One finding is that there is general agreement that the teaching assignment is most important to secondary-level Delaware teachers in the sample in their decisions to stay in their current positions. Teachers were asked to indicate which factors would make the most difference in a decision to stay in their current teaching position. Twice as many secondary teachers indicated that teaching assignment was most important compared with the next most popular choice: school leadership. These

findings reflect secondary-level teachers' preferences and not necessarily those of teachers in the primary grades. Other choices and response rates of secondary-level teachers are shown in Table 3.3.

Table 3.3. Factors That Most Affect Whether Secondary-Level Teachers Would Stay in Their Current Position

Factor	Percentage of Teachers
Teaching assignment	37.7%
School leadership	18.3%
Time during workday	16.6%
Collegial environment	15.2%
Teacher empowerment	4.9%
School facilities and resources	4.6%
Professional development opportunities	2.7%

Another finding is that the top three incentives identified by teachers that would have the most influence on their decision to move to a high-need school are, in order, as follows: (1) a salary increase of 3 percent to 5 percent, (2) a retention bonus of $5,000 to $10,000 for staying in a high-need school for three years, and (3) smaller class sizes. Table 3.2 (see page 95) lists the options from which teachers selected their top choices.

LEARNING FROM OUR RESEARCH

The preliminary findings from the interviews contain useful information about the perceived barriers to equitable distribution at the state and local levels as well as some useful information about policies and practices that facilitate equitable distribution. When the analysis of the surveys is completed, teachers also will be heard on topics such as how teachers are assigned to schools and how students are assigned to teachers as well as how salary, incentives, and working conditions affect their decision to remain in a school, transfer to another school or district, or leave teaching altogether.

Combining the findings from the surveys and interviews will provide Delaware with a window into the complexities of teacher placement and teacher movement within schools and districts. This approach will allow the state to carefully consider the advantages of current policies and incentives as well as point the way toward new, targeted policies that can address local needs and improve teacher distribution.

Other states may want to conduct similar studies to ensure that valuable resources are targeted at policies that contribute to a more equitable distribution of highly qualified, experienced teachers. In addition, states should consider requesting technical assistance from their RCC. The research protocols and processes that were developed for Delaware can be readily adapted to other states.

Local Needs, Targeted Support

Virtually every state is actively working to resolve inequities in teacher distribution. Unfortunately, there is no one-size-fits-all strategy for this endeavor. Different combinations of policies, incentives, and supports will need to be created to address local needs. Clarifying those local needs first is the key to ensuring that targeted resources affect teacher distribution.

As states experiment with various strategies, the impact of those efforts should be evaluated so that a database of possible solutions to specific local needs can be created. Some efforts will succeed because of adequate resources and careful implementation—and because the strategies are well suited to local conditions. Other efforts will fail. In the end, there will be much to learn from the failures as well as the successes.

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TQ CENTER RESOURCES FOR THE EQUITABLE DISTRIBUTION OF TEACHERS

- **TQ Research & Policy Brief**
  - *The Distribution of Highly Qualified, Experienced Teachers: Challenges and Opportunities* http://www.tqsource.org/publications/August2009Brief.pdf
- **TQ Center Webcasts**
  - *Raising Student Achievement Through the Equitable Distribution of Teachers* http://www.tqsource.org/webcasts/equitable/
  - *Innovative Ideas and Practical Suggestions for Improving the State Highly Qualified Teacher Plans* http://www.tqsource.org/webcasts/hqtPlans/
  - *Supporting Progress in Meeting the HQT Requirements of NCLB* http://www.tqsource.org/webcasts/supportingProgress/
  - *Equitable Distribution of Highly Qualified Staff: Challenges and Solutions* http://www.edvantia.org/publications/arccwebinar/EqDist_032007.html
- **TQ Center Tools**
  - Recruitment and Retention: Data (Interactive Data Tool) http://www2.tqsource.org/randr/data/index.asp
  - *Model Components for Revised State HQT Plans* http://www.tqsource.org/ModelComponentsMatrix.pdf
  - *Revising the Equitable Distribution Component in Your State's Plan for Highly Qualified Teachers* http://www.tqsource.org/TeacherDistributionPlanningTool.pdf
  - *Recruiting Quality Teachers in Mathematics, Science, and Special Education for Urban and Rural Schools* http://www.tqsource.org/publications/NCCTQRecruitQuality.pdf
  - *Recruiting Teachers for Urban and Rural Schools* http://www.tqsource.org/publications/KeyIssue_RecruitingUrbanRural.pdf
  - *Increasing Teacher Retention to Facilitate the Equitable Distribution of Effective Teachers* http://www.tqsource.org/publications/KeyIssue_TeacherRetention.pdf
  - *Recruiting Teachers for Schools Serving English Language Learners* http://www2.tqsource.org/strategies/recruit/recruitingTeachersforSchoolsServingELLs.pdf
- **TQ Center Events**
  - National Issue Forum: "Implementation of Highly Qualified Teacher Plans" http://www.tqsource.org/issueforums/hqplans/

RESOURCES FROM OTHER ORGANIZATIONS

- *Improving the Distribution of Teachers in Low-Performing High Schools* (Policy Brief), Alliance for Excellent Education
  http://www.all4ed.org/files/TeachDist_PolicyBrief.pdf
- *Examining the Distribution and Impact of Teacher Quality in Illinois* (Policy Research Report), Illinois Education Research Council
  http://ierc.siue.edu/documents/Teacher%20Quality%20IERC%202005-2.pdf
- *Teacher Perceptions of the Work Environment in Hard-to-Staff Schools*
  http://www.ecs.org/clearinghouse/55/87/5587.doc
- Sharing the Wealth: National Board Certified Teachers and the Students Who Need Them Most, *Education Policy Analysis Archives, 13*(18)
  http://epaa.asu.edu/epaa/v13n18/
- Teacher Sorting and the Plight of Urban Schools: A Descriptive Analysis, *Educational Evaluation and Policy Analysis, 24*(1), 37–62
  http://www.teacherpolicyresearch.org/portals/1/pdfs/Teacher_Sorting_and_Urban_Schools_EEPA.pdf
- *Are Public Schools Really Losing Their Best? Assessing the Career Transitions of Teachers and Their Implications for the Quality of the Teacher Workforce*, Center for Analysis of Longitudinal Data in Education Research
  http://www.caldercenter.org/PDF/1001115_Public_Schools.pdf
- *Wisconsin Teacher Distribution Project Report*
  http://dpi.wi.gov/tepdl/pdf/teacherdistribprojectexec.pdf

Addressing the Equitable Distribution of Teachers in Tennessee

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OVERVIEW

This article describes the efforts of the Tennessee Department of Education (TDE) to develop and implement an equity plan to promote the equitable distribution of teachers in the state, especially in high-poverty, high-minority schools. Throughout the process, the Appalachia Regional Comprehensive Center (ARCC) and the TQ Center provided TDE with sustained, in-depth technical assistance through webinars, a conference, a webcast, training, tools, and resources. This collaboration enabled TDE to make great strides in implementing strategies for ensuring the equitable distribution of highly qualified, highly effective teachers in Tennessee.

APPALACHIA REGIONAL COMPREHENSIVE CENTER

ARCC, operated by Edvantia, serves the states of Kentucky, North Carolina, Tennessee, Virginia, and West Virginia. It is one of 16 RCCs funded by the U.S. Department of Education to help build the capacity of SEAs to implement the current provisions of ESEA and to support districts and schools in their efforts to improve student outcomes. ARCC assists states in areas such as adolescent literacy, ELLs, formative assessment, statewide systems of support, and teacher quality.

THE CHALLENGE

In summer 2006, the U.S. Department of Education required states to submit highly qualified teacher (HQT) state plans that included an equity plan to ensure "that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, or out-of-field teachers" (NCLB, Title I, Part A, Section 1111[b][8][C]). To be accepted, the state's equity plan had to identify where inequities exist in teacher assignments, delineate specific strategies to address the identified inequities, and provide evidence for the probable success of these strategies.

On December 14, 2006, the U.S. Department of Education approved Tennessee's Teacher Equity Plan. The plan contained a comprehensive analysis of the equitable distribution of HQTs across the state. Data on teacher experience and education levels across schools that serve high versus low proportions of minority students also were included and revealed the following pervasive disparities:

- Across both elementary and secondary levels, a lower percentage of core academic courses are taught by HQTs in high-poverty schools compared with low-poverty schools.
- High-poverty schools and high-minority schools have larger percentages of beginning teachers than do low-poverty schools and low-minority schools.
- High-poverty schools and high-minority schools have smaller percentages of teachers with master's degrees than do low-poverty schools and low-minority schools.

In its equity plan, Tennessee committed to take its study one crucial step further by examining the disparity in teacher effectiveness across schools. The study research brief, titled *Tennessee's Most Effective Teachers: Are They Assigned to the Schools That Need Them the Most?* (Tennessee Department of Education, 2007b),

was completed by Julie McCargar, Ed.D., executive director, Office of Federal Programs, TDE, and Cory Curl, then director of policy and planning at TDE. Tennessee's value-added student assessment scores, which can be isolated to measure the impact that each teacher has on individual students' academic growth, uniquely positioned the state to carry out this analysis.

The study concluded that students in Tennessee's high-poverty, high-minority schools have less access to the state's most effective teachers and more access to the state's least effective teachers. The study further identified the six districts with the greatest equity gaps. TQ Center research and staff resources were requested to support Tennessee's initiative to decrease equity gaps in the placement and retention of the most effective teachers in high-poverty, high-minority schools, beginning with these six identified districts.

TENNESSEE'S COMMITMENT TO ACTION

The following resources were shared with the Tennessee State Board of Education and state legislators: the analyses completed through the state equity plan, the research brief written by McCargar and Curl, Tennessee teacher equity data, and national research from the TQ Center and The Education Trust. In addition, Governor Phil Bredesen shared the message of Tennessee's commitment to place highly effective teachers in all schools nationally. During a September 2007 presentation at the U.S. Chamber of Commerce's Institute for a Competitive Workforce Summit, Governor Bredesen made the following statement:

> There is great optimism and hope in our data that shows that no matter who you are or where you have come from, if a child is in front of an excellent teacher, and more importantly, a series of excellent teachers, he will make progress and perform well. Teachers are the core…in the system…in the school…in the classroom. They are the nucleus that holds it all together. Everything else is held in orbit by their gravity. (State of Tennesse, 2007)

Governor Bredesen told his audience that Tennessee planned to move forward with its initiative to encourage the best possible teachers in each and every classroom. As a result, Tennessee Code Annotated, Section 49-1-602(d) was amended during the 2007 legislative session to include Sections 5 and 6, which address HQTs in hard-to-staff schools and subjects. Under the statute, each district had to develop, adopt, and implement—prior to the beginning of the 2008–09 school year—a differentiated pay plan that addressed teaching in hard-to-staff subject areas or in schools that have difficulty hiring and retaining HQTs. The statute granted TDE authority to approve the district plans.

SUPPORT AND COLLABORATION: TECHNICAL ASSISTANCE THROUGH ARCC AND THE TQ CENTER

Technical assistance and support for the Tennessee Teacher Equity Plan took the form of webinars, an in-person conference focusing on equitable teacher distribution, and follow-up information and support. Tennessee officials wisely chose to focus efforts and resources on the six districts that had been identified as having the greatest disparities in the equitable distribution of effective teachers.

This decision made sense, not only in terms of addressing the areas of greatest need but also because these six districts represent more than 50 percent of the state's student population.

Webinars

ARCC, in collaboration with TDE and the TQ Center, hosted two webinars focusing on teacher quality and the equitable distribution of effective teachers: *Equitable Distribution of Highly Qualified Staff: Challenges and Solutions* (Appalachia Regional Comprehensive Center, 2007a) took place in March 2007, and *Tennessee Study on Teacher Effectiveness and Teacher Equity* (Appalachia Regional Comprehensive Center, 2007b) took place in April 2007. Two resources—*Planning Tool to Provide Evidence of Progress Toward Equitable Teacher Distribution* (Goe, 2006) and *Template for State Teacher Equity Plan* (Prince, 2006)—were disseminated to participating states as part of the resources for these webinars. ARCC and TDE used these tools to collect and disaggregate teacher quality data and complete the HQT equity plan.

The two webinars presented a national perspective on teacher equity and reported the results of the Tennessee equity study. They featured presentations from ARCC, TDE, and the TQ center with guest commentators from The Education Trust. The webinars had the following objectives:

- Review two Tennessee teacher equity plans.
- Compare years of experience with teacher effectiveness ratings in Tennessee mathematics classrooms.
- Discuss the findings and implications of providing highly qualified, highly effective teachers for all students.

The webinars guided the technical assistance plan that became part of the 2008 teacher quality initiatives. The following activities were included:

- Distribute teacher quality information to key stakeholders, including the Tennessee State Board of Education.
- Conduct additional webinars on the topic of teacher equity.
- Identify districts with the largest gaps in teacher equity.
- Work with the identified districts during the 2007–08 school year to develop a plan to address inequities in the placement and retention of highly qualified, effective teachers.

Teacher Equitable Distribution Conference

In October 2007, TDE in collaboration with ARCC sponsored a conference titled "Equitable Distribution of Effective Teachers" that convened the six districts identified as having the greatest challenges with the equitable distribution of teachers (see Tennessee Department of Education, 2007a). The conference, conducted with support from the TQ Center, included teams of key stakeholders from the identified districts (i.e., superintendents, human resources directors, Title I and Title II directors, school board members, teachers union representatives, and principals of high-poverty schools and low-poverty schools).

The overall goal of the conference was to facilitate the districts' implementation of a plan to address the inequities in teacher effectiveness across schools in their districts. The conference had the following objectives:

- Share information on national perspectives of teacher equity issues and solutions.

- Share and review the Tennessee Teacher Equity Plan data.
- Share the initiatives that are in place to address teacher inequities—both successes and challenges.
- Collaborate in the development of a plan to address teacher equity.
- Offer guidance during the plan's development and additional technical assistance from the TQ Center, ARCC, and TDE during the 2007–08 school year.

Facilitation and technical support for the conference was provided by Tricia Coulter, Ph.D., Learning Point Associates; Georgeanne Oxnam and Donna Carr, Ed.D., ARCC; and Gwendolyn Watson, urban specialist, TDE, Division of Accountability. Conference presenters and attendees represented the collaboration and commitment of TDE, the Governor's Office of State Planning and Policy, the Tennessee State Board of Education, and the districts in addressing the issue of highly effective teachers for all students.

Lana Seivers, Ph.D., then commissioner of education, and Susan Bunch, former associate commissioner, Teaching and Learning, presented information on Tennessee's teacher-quality equity goals and TDE expectations. Dr. McCargar followed with needs-assessment data on teacher effectiveness and a list of resources that are available for districts addressing equity issues. Curl presented the results of a teacher equity study she coauthored while serving on the TDE staff; and Gary Nixon, Ed.D., executive director, Tennessee State Board of Education, provided information on the newly passed state board policy on differentiated pay plans. Dr. Coulter informed participants about the national perspective on teacher quality and equity and shared strategies that other states are using to address these issues.

During the conference, staff from the six districts shared information on the following: their processes for hiring and assigning teachers; teacher transfer policies; policies, practices, or strategies currently in place to address equity in assigning and retaining high-quality teachers in high-need schools; data collection strategies; outcome data on past equity efforts; and challenges in ensuring that all teachers are highly qualified. Participants were pleased with all aspects of the conference, giving the highest ratings to the time provided for interaction with colleagues and for district teams to begin development of a district plan for the equitable distribution of effective teachers. These high ratings were evidenced in a survey of the Tennessee SEA clients, who were asked to indicate the extent to which ARCC's services have helped to increase state capacity to provide high-need districts and schools with access to highly effective educators. All respondents (N=5) said they felt ARCC's services had helped in this regard to either a great extent or a moderate extent.

Follow-Up Information and Support

As part of follow-up technical support, staff from the six districts that participated in the equitable distribution conference were surveyed in March 2008 to determine the level of progress made by districts and additional technical support needs. Survey responses were used by TDE and ARCC staff to develop the content for a webinar held on April 22, 2008. Dr. McCargar and Oxnam hosted the webinar, which provided an opportunity for the six districts to share issues, provide feedback, and receive additional support from TDE on their plans to address the inequitable distribution of highly effective teachers. During the webinar, most districts reported that they were exploring performance-based pay as a strategy to keep highly effective teachers in high-poverty schools.

In June 2008, ARCC, in collaboration with TDE and the TQ Center, hosted a webcast titled *Highly Effective Teachers: More Than Highly Qualified* (Appalachia Regional Comprehensive Center, 2008). In addition to emphasizing "highly effective" instead of "highly qualified" teachers, the webcast highlighted TDE's efforts in promoting the equitable distribution of teachers—especially in high-poverty, high-minority schools.

In addition to the follow-up webinar, TDE, with support from ARCC and the TQ Center, continued to provide individual technical assistance and support for Tennesse districts throughout the remainder of the 2008 initiative year. This technical assistance was significant because it provided feedback on the district equity plans and ensured that there was adequate time for needed adjustments before implementation in the 2008–09 school year. The TQ Center and ARCC continued to serve as resources for TDE by providing information and guidance to the six districts during the implementation of the plans.

Testimonial

> "ARCC and the TQ Center have enthusiastically shared and supported our vision to equitably place highly skilled, effective teachers in Tennessee classrooms. The technical assistance—from webinars to work sessions designed for high-need districts—was designed specifically to address districts' and schools' particular teacher quality and equity needs. We believe our collaborative efforts have begun to make a difference in the lives of Tennessee's children—especially those who often struggle the hardest to achieve."
>
> *—Julie McCargar, Ed.D., Executive Director, Office of Federal Programs, Tennessee Department of Education*

ASSESSING EFFECTIVENESS THROUGH A DISTRICT AUDIT TOOL

In 2007, ARCC trained teams from TDE's Division of Accountability to conduct district audits using a tool developed jointly by Edvantia and the Council of Chief State School Officers (CCSSO). The tool, titled *District Audit Tool: A Method for Determining Level of Need for Support to Improvement* (Sheinker et al., 2005), provides methods that states can use to diagnose district functions in multiple dimensions shown to correlate with gains in student achievement on standards-based assessments. Data analysis tools and scoring rubrics are useful for evaluating how districts or schools measure up against these research-based dimensions. The overall goal of the audit tool is to help states determine areas in which support is most needed and how best to allocate their resources. The district audit tool was provided to two of the six districts.

The audit teams worked under the guidance of TDE Assistant Commissioner Connie Smith, Ph.D., division staff members Jean Sharp and Watson, and ARCC staff members Oxnam and Dr. Carr. The purpose of the audit was to gather data that a district and TDE could use collaboratively for making research-based recommendations about differentiated technical assistance and support. The district audit assessed highly qualified teachers and eight other critical components of effectiveness: leadership, academic content and achievement standards, curriculum and instruction, professional development, assessment and accountability, school culture and climate, budget and resources, and parent and community involvement.

The audit assessed the effectiveness of district efforts in four areas related to highly qualified staff:

- Meeting highly qualified regulations.
- Placing and retaining highly qualified, effective teachers in high-need schools and classrooms.
- Providing incentives for teachers assigned to high-need schools.
- Supporting administrators, especially in high-need schools.

Two of the six districts audited during 2007–08 also were identified as having the greatest inequities in the placement of highly qualified, effective teachers in schools with the greatest needs. Data made available by the TQ Center were used to develop several research-based recommendations for district improvements:

- Increase the pool of available teachers.
  - Create high-quality alternative routes for teacher preparation and certification.
  - Fully utilize community colleges for teacher preparation.
  - Implement grow-your-own strategies for hard-to-staff schools.
  - Revise transfer and hiring practices for at-risk schools to provide more options and control over budgets and recruitment decisions.
- Retain teachers in schools that need them most.
  - Provide comprehensive induction and support for new teachers.
  - Improve working conditions at schools.
  - Recognize and support quality leadership in at-risk schools.
  - Provide professional development and challenging career options—including leadership opportunities—for teachers.
  - Create learning communities.

Testimonial

> "In Tennessee, we were able to move our teacher equity projects forward by capitalizing on three years of relationship building and collaboration with ARCC and the TQ Center. This collaborative effort has enabled us to identify teacher quality challenges, target high-need districts, and tailor the research-based resources and technical assistance we provide to our schools and districts. Working together, we have been able to approach teacher quality issues with a steadfast resolve and unwavering commitment to achieving the goal of a high-quality, effective teacher for every student."
>
> *—Connie J. Smith, Ed.S., Ph.D., Assistant Commissioner, Tennessee Department of Education*

TENNESSEE'S STATUS IN ADDRESSING THE CHALLENGE OF EQUITABLE TEACHER DISTRIBUTION

The six identified districts continued to collect data on the effects of the plan throughout the 2008–09 school year and provided status reports at the end of that school year. TDE will use the insight gained from the work of these districts to help all districts across the state as they address the equitable distribution of teachers.

Several findings resulted from the teacher equity work:

- The collection and analysis of vast amounts of teacher and student data are necessary.
- Districts have to work closely with teachers unions on some parts of their proposals.

- Building the skills of existing teachers and then working to retain them in high-priority schools is more productive than encouraging effective teachers to transfer to the high-priority schools.
- When considering the important factors influencing teacher recruitment and retention, school culture and leadership may be as integral as additional income.

HOW LESSONS LEARNED CAN FURTHER BENEFIT THE FIELD

Implications for Tennessee

Implications for future work were apparent during the Tennessee district equity discussions. Districts were willing to share with others what they had learned. Moreover, they were eager to learn how incentives offered for recruitment and retention of teachers in high-need schools have played out nationally over time.

District staff had several questions about the best strategies for recruiting and retaining staff in high-need schools, including the following:

- Which incentives work best to recruit and retain teachers for high-priority districts and schools?
- Do incentives (especially fiscal incentives) become permanent, or are they phased out over time?
- Is there any research on how much fiscal incentive is needed to recruit and retain teachers in high-priority schools?
- Which staff members should receive incentives, and how should the incentives be apportioned?
- Is there potential for fallout if the district's financial status changes and the incentives are affected (i.e., reduced or eliminated)?
- Should incentives be performance based?
- What changes (i.e., culture, leadership, teaching strategies) might be the most influential on a teacher's decision to teach at a particular school?

In addition, district staff saw benefits from increasing the internal capacity of high-priority schools and decreasing the need to recruit teachers from other schools or from outside of the district. The need for district and school leaders who can identify the exemplary practices of teachers already working in high-priority schools and use this information to help less proficient teachers improve also was recognized. District and school leaders realized that they must understand the school and classroom conditions that set high expectations and contribute to increased achievement and be able to build this culture in all schools and classrooms.

Tennessee's commitment to teacher equity is clear: Every child deserves a quality education in a high-performing school, regardless of the school's location or demographics. TDE also realizes the implications of the Teacher Equity Plan: There are not enough highly qualified, effective teachers to meet the needs of all students. TDE recognizes a continuing need to develop and implement programs that will strengthen the corps of highly skilled staff, both those who are currently in the education field and those who are entering the field. To meet this goal, TDE is partnering with secondary teacher preparation programs, creating and supporting innovative alternatives to traditional teacher education programs, defining characteristics of successful schools and districts, identifying and disseminating exemplars of effective practice, providing professional development for teachers and administrators, and supporting the equity efforts of Tennessee districts.

National Implications

The Tennessee experience provides valuable lessons about efforts to address the equitable distribution of teachers. The state and its districts made a strong commitment to identify and address the challenges. This commitment was evident in the collaboration with ARCC and the TQ Center, allowing the state to benefit from support and information beyond its original resources.

This collaborative effort benefited ARCC and the TQ Center as well as the state by providing additional and specific information on the challenges faced by states and districts, not only in determining strategies to address the inequitable distribution of teachers but also in implementing these strategies. Using Tennessee's efforts as an example, the TQ Center will be able to better target the type of information and resources it provides to meet the needs of RCCs and SEAs. Examples of this targeted information include Policy-to-Practice Briefs and Research-to-Practice Briefs that distill the research and policy base into easily accessible guides for state action; small workshops that gather state teams and provide them with the research information, time, and support to identify their greatest challenges and the strategies to address them; and easily navigable technical assistance resources that provide both examples of support available from the TQ Center and out-of-the-box strategies and information on implementation.

With the expanding focus on teacher effectiveness and equitable distribution, the need for comprehensive technical assistance will only grow. This need can be met through collaboration; the leveraging of existing information and resources; and the provision of sustained, in-depth technical assistance from the RCCs working in concert with the states they serve.

Timeline for Addressing the Equitable Distribution of Teachers in Tennessee

Year 1: 2005–06

- ARCC supported TDE in the development of an assessment and approval process for locally developed, highly qualified paraprofessional protocols. The local evaluation option resulted in greater opportunities for paraprofessionals to meet the current requirements of ESEA.
- ARCC convened meetings of key personnel from across TDE departments to discuss key HQT issues. The meetings became a springboard to the work in Years 2 and 3, as SEA staff decided to gather the data that would help them answer the following question: Does Tennessee have an equity gap in placing HQTs in all schools, and if so, how wide is the gap?
- The TQ Center, ARCC, and MACC hosted two webinars to assist SEAs with completing the HQT equity plan study and report. The data collection and format tools needed to complete the study were disseminated.
- ARCC collaborated with TDE Title I and Title II staff to collect, disaggregate, and analyze HQT data for high-poverty and low-poverty schools and high-minority and low-minority schools.
- The results were included in Tennessee's Teacher Equity Plan, which was submitted by Angie Cannon, executive director, Teacher Quality and Development, TDE, to the U.S. Department of Education in early July 2006 and approved later that year.

Year 2: 2006–07

- ARCC and TDE continued their work toward the goal of ensuring that 100 percent of Tennessee teachers are highly qualified. They moved forward in their study of the equitable distribution of highly qualified, highly effective teachers.
- Working with William Sanders, Ph.D., University of North Carolina, and data from the value-added system he developed, Cory Curl and Dr. Julie McCargar wrote a research brief (Tennessee Department of Education, 2007). The result of the study was an in-depth examination of the disparity in teacher effectiveness across schools, based on percentages of students from low-income families and students' race/ethnicity.
- The findings of the study were reported and disseminated through two ARCC webinars (held in March and April 2007), supported with presentations from the TQ Center and TDE staff and commentaries by The Education Trust.
- The teacher equity code was passed by the Tennessee General Assembly.
- TDE identified six districts with the greatest inequity in the placement of highly qualified, effective teachers in high-minority and high-poverty schools. Five of the six identified districts are the largest in the state; combined, they represent more than 50 percent of Tennessee's student population.
- ARCC trained staff from TDE's Division of Accountability to conduct district audits that included highly qualified teachers among nine components, as part of the statewide system of support. TQ Center resources were used by audit teams to write research-based improvement recommendations for districts.
- With ARCC assistance and using TQ Center resources, TDE staff conducted district audits that included recommendations for meeting HQT requirements.

Year 3: 2007–08

- ARCC, with support from the TQ Center, provided assistance to TDE staff in planning and delivering a conference in October 2007 for the six districts with the largest gaps in the equitable distribution of highly effective teachers. Conference participants included district staff, board members, community members, and representatives from teachers organizations and local governing boards. District teams were provided with information and research related to the distribution of highly effective teachers and left the workshop with initial plans for developing an action plan to address the inequities.
- ARCC staff assisted TDE staff in collecting information on the progress of district planning processes.
- ARCC and TDE provided follow-up conference calls and a webinar for district staff on April 22, 2008.
- On June 26, 2008, ARCC—in collaboration with TDE and the TQ Center—produced a webcast titled *Highly Effective Teachers: More Than Highly Qualified*, which highlighted TDE's efforts in promoting the equitable distribution of teachers.

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NATIONAL COMPREHENSIVE CENTER FOR TEACHER QUALITY

Considerations for Using Evaluation and Compensation to Enhance Teacher Effectiveness

CHAPTER 4

CHAPTER 4 Considerations for Using Evaluation and Compensation to Enhance Teacher Effectiveness

Cortney Rowland, *Learning Point Associates*

INTRODUCTION

Most people working in the teacher quality arena would agree that the highly qualified teacher provisions of the Elementary and Secondary Education Act (ESEA), as reauthorized by the No Child Left Behind (NCLB) Act, set the minimum threshold for what is expected of teachers; that is, they must have a bachelor's degree, state certification or licensure, and verified demonstration of content knowledge in the area being taught. To date, however, most states have not reached the goal of having 100 percent of classes taught by highly qualified teachers.

As states continue to work on promoting the teacher qualifications described above, however, the goal has been shifting toward building a highly *effective* teacher workforce and ensuring that all children have access to highly *effective* teachers. Language included in the American Recovery and Reinvestment Act (2009) charging states to improve teacher effectiveness and ensure the equitable distribution of teachers has encouraged this shift. The meaning of *effectiveness* has not been definitively established, however. As Sabrina Laine, Ph.D., director of the National Comprehensive Center for Teacher Quality (TQ Center), noted in *Education Week* (Sawchuck, 2009, p. 18): "People are not all saying the same thing when they talk about teacher effectiveness.... States need to start by defining 'effectiveness.' "

This chapter addresses key questions, current knowledge, and trends related to teacher evaluation and compensation, both of which can be powerful levers for enhancing teacher effectiveness. The sections at the end of the chapter illuminate the important issues being discussed and offer examples of how to bolster evaluation and compensation to improve overall teacher effectiveness. These sections cover the following topics:

- An overview of Utah's efforts to reform educator compensation, primarily through instructional quality
- A description of the TQ Center's *Communication Framework for Measuring Teacher Quality and Effectiveness: Bringing Coherence to the Conversation* (Coggshall, 2007), which promotes productive dialogue about the measurement of teacher quality and effectiveness
- An overview of recent efforts by the state of Ohio to develop evidence-based teacher evaluation guidelines for its school districts

These sections also provide examples of how states and regions are addressing teacher effectiveness, particularly through evaluation and compensation, and offer an opportunity to examine how these examples might be applied in different contexts.

DEFINING *TEACHER EFFECTIVENESS*

As this report was being written, the term *teacher effectiveness* had not been officially defined by the federal government (i.e., in the same way that *highly qualified teacher* was defined in NCLB). ESEA has not been reauthorized since 2002, and there is no indication that a reauthorized bill in the near future will contain such a definition. Absent this national guidance, *teacher effectiveness* must be defined at the state and local levels if these entities are to set goals for advancing

teacher effectiveness and developing strategies to meet those goals. Moreover, without a working definition of *teacher effectiveness*, there will be no way to measure outcomes and thus no way to determine if efforts are successful.

As a starting point, states and districts might consider using the five-point definition of *teacher effectiveness* offered by Goe, Bell, and Little (2008):

- "Effective teachers have high expectations for all students and help students learn, as measured by value-added or other test-based growth measures, or by alternative measures.
- "Effective teachers contribute to positive academic, attitudinal, and social outcomes for students, such as regular attendance, on-time promotion to the next grade, on-time graduation, self-efficacy, and cooperative behavior.
- "Effective teachers use diverse resources to plan and structure engaging learning opportunities; monitor student progress formatively, adapting instruction as needed; and evaluate learning using multiple sources of evidence.
- "Effective teachers contribute to the development of classrooms and schools that value diversity and civic-mindedness.
- "Effective teachers collaborate with other teachers, administrators, parents, and education professionals to ensure student success, particularly the success of students with special needs and those at high risk for failure." (p. 8)

This definition includes criteria for measuring teachers' performance in the classroom or school by their own behaviors and practices as well as by the performance of their students, which is the ultimate goal. A subsequent section in this chapter (see page 135) describes Ohio's efforts to develop teacher evaluation guidelines based on an adaptation of this five-point definition. Other states or districts might consider similarly anchoring their teacher evaluation guidelines or standards on a solid definition of *teacher effectiveness*.

A working definition of *teacher effectiveness* will take states only so far, however. After states know what they are working toward, they must set objectives for achieving those goals. The TQ Center's *Communication Framework* (Coggshall, 2007) is a useful tool for addressing communication and goal clarification related to teacher effectiveness. More information about the framework is provided in the box below and later in this chapter (see page 133).

TQ CENTER RESOURCE

The *Communication Framework for Measuring Teacher Quality and Effectiveness: Bringing Coherence to the Conversation* (http://www.tqsource.org/publications/NCCTQCommFramework.pdf) provides a common framework that can be used by regional comprehensive center (RCC) staff, state education agency personnel, and local education agency personnel to promote effective dialogue about the measurement of teacher quality and effectiveness. The framework consists of the following four components: communication planning, goals clarification, teacher quality terms, and measurement tools and resources.

EVALUATION AND COMPENSATION STRATEGIES

States and districts can use a variety of strategies to measure and enhance teacher effectiveness. Two of these strategies—evaluation and compensation—are discussed in this chapter. Discussions of evaluation and compensation to improve overall teacher effectiveness can be difficult and nuanced because both processes often are negotiated at the district level. The time is right, however, to talk candidly about their use in enhancing teacher effectiveness. The Obama administration has made it clear that improving the quality of U.S. teachers is a pillar of its education plan and that efforts such as compensation reform are needed to accomplish that goal (Office of the Press Secretary, 2009).

Using Teacher Evaluation to Improve Teacher Effectiveness

One way that states and districts can move toward the goal of improving teacher effectiveness for all students is through the use of a high-quality teacher evaluation or performance management system that measures effectiveness, promotes professional growth, and improves instruction in order to raise student achievement. Several states and districts currently are revisiting their teacher evaluation systems in order to better assess teacher effectiveness and nurture those areas in which teachers have shown strengths as well as weaknesses.

The following paragraphs provide helpful information. First, an overview of current knowledge about teacher evaluation systems is presented. Following it are characteristics of high-quality teacher evaluation systems, several key considerations of these systems, and a sampling of current practices and trends across districts and states.

Overview of Teacher Evaluation Systems. The TQ Center Research & Policy Brief titled *Improving Instruction Through Effective Teacher Evaluation: Options for States and Districts* (Mathers & Oliva, 2008) notes that *high-quality* teacher evaluation systems identify and measure instructional strategies, professional behaviors, and the delivery of content knowledge that enhances student learning. Unfortunately, most teacher evaluation systems do not address these fundamental goals (Toch & Rothman, 2008). Mathers and Oliva as well as Toch and Rothman agree that this situation is a serious misstep and that teacher evaluation is sorely underutilized as a tool for improving teacher effectiveness. In addition, both sets of authors agree that teacher evaluation systems optimize teacher effectiveness when formative and summative evaluations are used in tandem, resulting in ongoing information for improved teacher performance and targeted professional development (through formative evaluation) as well as evidence for making important decisions about salary, tenure, transfers, and dismissals (through summative evaluation).

The NCLB highly qualified teacher requirements characterized teacher quality as a set of inputs. As the focus shifts to teacher *effectiveness*, a concomitant shift to assessing *outputs* related to teacher performance through behaviors in the classroom and varying measures of student achievement also is needed (Gordon, Kane, & Staiger, 2006).

TQ CENTER RESOURCE

Improving Instruction Through Effective Teacher Evaluation: Options for States and Districts (http://www.tqsource.org/publications/February2008Brief.pdf) is a TQ Research & Policy Brief that discusses the measures used in teacher evaluation and focuses on their strengths, limitations, and current use. It underscores aspects of evaluation policies currently aligned with best practices and illuminates areas in which policymakers can improve evaluation rules, regulations, and implementation—thereby improving teacher instruction and student performance.

Characteristics of High-Quality Teacher Evaluation. Information about what constitutes a high-quality evaluation system is plentiful (e.g., Goe et al., 2008; Mathers & Oliva, 2008; Toch & Rothman, 2008). The following components are included:

- Evaluation systems should include opportunities for professional growth.
- Evaluation criteria should reflect specific teaching standards.
- Evaluation should occur more than once a year and should be conducted by multiple evaluators.
- Evaluations should use multiple measures.
- Evaluation instruments should include criteria that are measurable and that yield useful results for teachers' improvement.
- Evaluators should participate in training to ensure consistency in evaluation.

A high-quality evaluation system also may include the following:

- Opportunities to examine content-specific pedagogy
- Additional forms of evidence (e.g., artifacts)
- Degrees of differentiation, such as varying processes for new, experienced, and struggling teachers
- Positioning within a system that ensures quality of implementation through the following resources and efforts:
  - Timelines, requirements, and forms
  - Coaching and feedback
  - Minimizing of teaching burdens
  - Support from the top
  - Alignment with human capital management systems

A host of tools is available for conducting teacher evaluations, including classroom observations, portfolios, videotapes of teaching performances and classroom interactions, and student outcomes. Each tool has strengths and weaknesses. (Several TQ Center resources provide information about ways to measure teacher performance and the advantages and disadvantages associated with each. Web addresses for these resources are provided on page 124 in this chapter.) The discussion by Goe et al. (2008) about the importance of using *valid* methods for evaluating teachers is particularly notable. When teacher effectiveness is evaluated, the criterion used should measure exactly what it claims to measure. Furthermore, the measure should be valid for the intended purpose. For example, tools that are validated for assessing instructional performance might not be valid in a high-stakes situation related to salary or to hiring and firing.

TQ CENTER RESOURCE

Methods of Evaluating Teacher Effectiveness (http://www.tqsource.org/publications/RestoPractice_EvaluatingTeacherEffectiveness.pdf) is a TQ Center Research-to-Practice Brief designed to help RCC staff and state policymakers as they consider evaluation methods to clarify policy, develop new strategies, identify effective teachers, or guide and support districts in selecting and using appropriate evaluation methods for various purposes.

Key Considerations in Teacher Evaluation. Many states and districts understand the need for valid assessments of teacher effectiveness and recognize the characteristics of a high-quality teacher evaluation system. Guidance is widely available on what constitutes a high-quality teacher evaluation system and what measures are appropriate for use in certain evaluation situations. *Creating the conditions* for use of these measures within a comprehensive evaluation system requires additional considerations and potential system improvements, however. Attention must be paid to state and local contexts, stakeholder input, and the availability of resources, so developing such a system can be a challenge.

The following key questions should be considered by states when a teacher evaluation system is being developed, revised, or adapted:

- What is the state's role in teacher evaluation?
- What role do teachers unions play in the teacher evaluation process, and how can states collaborate with unions in defining common goals?
- How can states and districts ensure that evaluation is done well, considering the restraints of time, money, and other resources?

Use of a high-quality, comprehensive teacher evaluation system to improve overall teacher effectiveness is a promising method for helping states address teacher quality goals. Typically, teacher evaluation systems are negotiated at the district level, so states often do not have explicit, rigorous criteria or guidelines in place to promote or encourage the use of a high-quality evaluation system for identifying and improving teacher effectiveness.

As part of their obligation to meet state-level teacher quality goals, however, states can provide a set of practical, evidence-based criteria for districts to use in developing, revising, and implementing a high-quality evaluation system. Mathers and Oliva (2008) have provided several policy options for states to consider when discussing their role in teacher evaluation systems. Furthermore, there are numerous examples of states and districts collaborating with teachers unions to meet goals related to improved teacher effectiveness through evaluation (Mathers & Oliva, 2008; Toch & Rothman, 2008).

TQ CENTER RESOURCE

A Practical Guide to Evaluating Teacher Effectiveness (http://www.tqsource.org/publications/practicalGuide.pdf) is designed to provide guidance to states and districts as they consider which measures to use for the purpose of evaluating teacher effectiveness. It includes a definition of *teacher effectiveness*, a table indicating which evaluation methods are most suitable for different circumstances and goals, summaries of various measures, and a planning guide to use in designing an evaluation system.

It is important to note that districts and states with effective teacher evaluation systems often have invested significant time and resources in the effort. For example, some districts and states use professional development funds for teacher evaluation systems that include targeted components of professional growth.

TQ CENTER RESOURCE

"From Planning to Action: Effectively Using Your Professional Development Resources" (http://www.tqsource.org/issueforums/plantoAction/) was a national issue forum hosted by the TQ Center in March 2008. Its purpose was to help RCCs and state education agencies increase their awareness and use of professional development resources. Presentations and other information from this meeting are available online.

Examples of Systems for Evaluating Teacher Effectiveness. States do not have to start from scratch when choosing valid, reliable methods for assessing teacher performance or collaborating with teachers unions on an evaluation model to improve teacher effectiveness. The following models can be used as references:

- Iowa provides districts with a model framework for designing local staff evaluation systems. The framework aligns with the state's teaching standards (Iowa Department of Education, 2008).
- New Mexico has a tiered licensing system in which teachers are required to earn advanced levels of licensure to continue teaching (see College of Education, University of New Mexico, 2009). The state uses a comprehensive portfolio assessment to move teachers along the licensure process.
- Tennessee developed a performance assessment tool based on the *Framework for Evaluation and Professional Growth* (Division of Teaching and Learning, 2009). Principals discuss growth plans with teachers and conduct walk-throughs to determine whether teachers are improving in the domains outlined in the framework.
- Charlotte Danielson's *Enhancing Professional Practice: A Framework for Teaching* (Danielson, 2007) is a well-known, high-quality tool that many districts have used as the basis for their teacher evaluation systems. The framework consists of 22 components organized into four domains: planning and preparation, classroom environment, instruction, and professional responsibilities.

- Austin (Texas) Independent School District developed a framework for a student learning objectives approach to evaluating teacher effectiveness. Student learning objectives are student growth targets that teachers set at the beginning of the school year. At the end of the semester or school year, teachers are assessed on whether or not their students achieved these objectives (Austin Independent School District, 2009).

TQ CENTER RESOURCE

Tips & Tools Key Issues contain strategies and resources to support RCC staff, state education agency personnel, and other education stakeholders as they address various aspects of educator quality. These searchable documents allow a user to focus on specific approaches or strategies related to educator quality through targeted resources and examples. The following Key Issues relate to educator evaluation and effectiveness:

- *Using Performance-Based Assessment to Identify and Support High-Quality Teachers* (http://www.tqsource.org/publications/keyIssue-June2008.pdf)
- *Using Value-Added Models to Identify and Support Highly Effective Teachers* (http://www2.tqsource.org/strategies/het/UsingValueAddedModels.pdf)

Using Teacher Compensation to Enhance Teacher Effectiveness

Many states and districts are considering alternative methods for paying teachers as a way of enhancing or rewarding teacher effectiveness. These emerging alternative compensation systems have affected teacher evaluation as well because states and districts have had to revisit their outdated or ineffective evaluation systems to support high-stakes compensation decisions. As Toch and Rothman (2008) point out, "Rewarding teachers on the basis of their performance requires a credible system of measuring the quality of teachers' work—something that the vast majority of public schools don't have" (p. 1).

Teachers themselves have mixed views toward performance-based compensation. Interestingly, a 2003 Public Agenda report noted that "teachers are receptive to giving extra pay to those who work harder or who work in the most challenging schools. But they balk at paying more to teachers based on test scores or the subject they teach" (Farkas, Johnson, & Duffett, 2003, p. 24).

Although a comprehensive discussion of *how* to reform teacher pay is beyond the scope of this chapter, the following paragraphs will broach the topic of how alternative compensation generally can be used to enhance teacher effectiveness. First, the common goals of alternative compensation systems are presented. Following these goals is a discussion of key considerations in reforming teacher compensation as well as several examples of alternative compensation systems.

Goals of Alternative Compensation Systems. Generally speaking, the jury is still out on whether alternative compensation systems, in and of themselves, can improve instruction and student achievement (Podgursky & Springer, 2006). However,

well-designed and comprehensive alternative compensation systems provide the opportunity to achieve the following goals:

- Improve the pool of teaching applicants.
- Create incentives for teachers to work in high-need schools and in subject areas where they are sorely needed.
- Improve teacher knowledge and skills.
- Encourage teachers to take on more responsibility or advance along a career ladder.

All of these opportunities create pathways for enhancing overall teacher effectiveness. For example, a school district or state might use compensation to recruit or retain teachers who have proven to be effective in hard-to-staff schools or in subject areas that are typically staffed with inexperienced, unqualified, and ineffective teachers—and thus pegged to low performance. In addition, a school district or state might establish an overall improvement system that aligns pay with professional development opportunities that teachers need in order to perform well and positively affect student performance. Although teacher pay reform certainly is not the only way to create these opportunities, it is indeed an important one that should not be overlooked. Furthermore, alternative pay programs have the best chance of improving teacher effectiveness when the incentives are part of a larger system of teacher support, including evaluation and performance management (Baber, 2007).

Key Considerations in Reforming Teacher Compensation. Although implementing pay reform can be controversial, states are in a unique position to use compensation as a springboard for other policy changes related to enhancing teacher effectiveness (Goldhaber, 2009). States that are thinking about implementing an alternative compensation system at any level should consider the following questions:

- What behavior, activities, or outcomes is the compensation reform intended to address?
- How will teachers be evaluated, and is that evaluation system in place?
- Is participation mandatory or voluntary?
- Will awards be individual or school based?
- What stakeholders need to be involved, and how should they be involved?
- What is the state's role?
- How can the state work with teachers unions?
- How can the state determine whether a pay reform system works?

Currently, 33 federally funded Teacher Incentive Fund (TIF) grantees are experimenting with different types of alternative compensation programs (Center for Educator Compensation Reform, 2009). These grantees have been implementing their programs for at least three years, and they have learned much about the challenges and the key programmatic components of success. For example, their experiences show that performance pay plans should be aligned with broader district goals and school improvement plans and should be fully integrated within the core operations of the organization. Also, some grantees have found program implementation challenging without data systems capable of accurately and reliably linking information among human resources, payroll, and student record and assessment domains. Last, grantees have found that professional development is key to supporting program goals and the identified needs of individual, grade-level, and subject-area teachers.

The Center for Educator Compensation Reform is a federally funded center that supports TIF grantees through technical assistance, monitoring, and content

development and dissemination through its website (http://cecr.ed.gov). The website offers a checklist that identifies the major components of an alternative compensation system as well as the planning, design, and implementation steps that govern who should be involved in developing such as system, how decisions should be made, where necessary resources can be obtained, and when major project milestones should be completed (Center for Educator Compensation Reform, 2007).

Examples of Alternative Compensation Systems. Similar to the strategies and practices for teacher evaluation provided earlier in this chapter, examples of alternative compensation systems provide districts and states with illustrations of best practices and lessons learned. The following models and resources can be used as references during the design and implementation stages of an alternative compensation system to enhance teacher effectiveness:

- The Professional Compensation System for Teachers (ProComp) program, developed by Denver Public Schools (n.d.), supplements the traditional salary schedule with additional pay for teacher knowledge and skills, satisfactory evaluations, fostering of student growth, and employment in hard-to-staff areas. Under ProComp, teachers receive a 3 percent salary increase every three years if they receive a satisfactory rating on their evaluations. The evaluation tool was developed collaboratively by teachers, administrators, and other educators.
- Several districts and states use the Teacher Advancement Program (see National Institute for Excellence in Teaching, 2009), a national model for alternative compensation based on four areas, one of which is standards-based accountability. With this tool, teachers are evaluated in the classroom on multiple measures at multiple points, using evaluators who have received extensive training.
- The Quality Compensation (Q Comp) program, developed by the Minnesota Department of Education (2008) is a state-level, pay-for-performance program that includes an evaluation system and allows for district flexibility.
- The Center for Educator Compensation Reform (2008) provides a national map that includes a profile of most of the district-level and state-level alternative compensation programs around the country as well as those under way in charter schools. CECR map profiles provide a variety of information, including access to information about how the programs evaluate educators for compensation purposes.

TYING IT ALL TOGETHER

Teacher evaluation and compensation can be powerful levers for identifying, enhancing, and rewarding teacher effectiveness. Strategic thinking about compensation and how to best identify and reward effective teachers can support efforts to staff classrooms with the professionals whom American students so urgently need for success in the 21st century.

To recruit and retain highly effective teachers, especially in classrooms that need them most, a system of professional growth and opportunities for advancement should be supported by a high-quality evaluation system and reflected in compensation. Without fair, efficient, rigorous, and meaningful evaluation systems, teacher effectiveness is compromised. Compensation reform also must be rooted in these systems if it is to produce the desired results.

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ADDITIONAL RESOURCES FROM THE TQ CENTER

A Practical Guide to Evaluating Teacher Effectiveness
http://www.tqsource.org/publications/practicalGuide.pdf

This publication provides guidance to states and districts as they consider which measures to use for the purpose of evaluating teacher effectiveness. It includes a definition of teacher effectiveness, a table indicating which evaluation methods are most suitable for different circumstances and goals, summaries of various measures, and a planning guide to use in designing an evaluation system.

Approaches to Evaluating Teacher Effectiveness: A Research Synthesis
http://www.tqsource.org/publications/EvaluatingTeachEffectiveness.pdf

This research synthesis examines how teacher effectiveness is currently measured. Practical guidance for evaluating teacher effectiveness extends beyond teachers' contributions to student achievement gains and includes their impact on classrooms, schools, and colleagues as well as their contributions to other important outcomes for students.

Improving Instruction Through Effective Teacher Evaluation: Options for States and Districts
http://www.tqsource.org/publications/February2008Brief.pdf

This TQ Research & Policy Brief discusses the measures currently used in teacher evaluation and focuses on their strengths and limitations. It underscores aspects of evaluation policies that currently are aligned with best practices and illuminates areas in which policymakers can enhance evaluation rules, regulations, and implementation, thereby improving teacher instruction and student performance.

Methods of Evaluating Teacher Effectiveness
http://www.tqsource.org/publications/RestoPractice_EvaluatingTeacherEffectiveness.pdf

This Research-to-Practice Brief is intended to help RCC staff and state policymakers as they consider evaluation methods to clarify policy, develop new strategies, identify effective teachers, or guide and support districts in selecting and using appropriate evaluation methods for various purposes.

Communication Framework for Measuring Teacher Quality and Effectiveness: Bringing Coherence to the Conversation
http://www.tqsource.org/publications/NCCTQCommFramework.pdf

This framework was developed to promote effective dialogue about the measurement of teacher quality and effectiveness.

Paying for Teachers' Performance—Strategies and Conditions for Success
http://www.tqsource.org/webcasts/payforteach/index.php

This webcast examines the policy, research, and practice of performance-based compensation, specifically focusing on valid, reliable, and ethical ways to evaluate teachers' instructional performance. Experts discuss the promise and pitfalls of value-added and other statistical measures of student achievement growth as well as teaching portfolios and professional administrator evaluations.

Case Study: Utah

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INTRODUCTION

Many teachers are now meeting the "highly qualified" requirements of the No Child Left Behind (NCLB) Act, but *highly qualified* does not always mean *highly effective*. In fact, research has shown that teacher qualifications alone are not strong predictors of effective teaching, as measured by students' academic gains (for reviews, see Goe, 2007; Rice, 2003; Wayne & Youngs, 2003; Wilson & Floden, 2003). Logical next steps for many states include defining *teacher effectiveness* and then determining whether teachers are effective.

Measures of teacher effectiveness have become increasingly important as the idea of offering monetary bonuses, incentives, or salary bumps to the best teachers has grown in popularity. The belief that these incentives may convince the most effective teachers not to leave the profession for more lucrative opportunities has contributed to that popularity. Because there is no clear consensus in policy, practice, or research circles about the definition of *teacher effectiveness*, determining fair, equitable, and valid ways of measuring effectiveness is a frequently debated topic. It was into this debate that Utah was recently thrust—ready or not. Utah's experience with pay-for-performance systems illustrates how a state can undertake an important task for which few clear roadmaps exist.

UTAH'S PLAN TO REWARD EFFECTIVE TEACHERS

In 2007, the Utah Legislature and the Utah State Board of Education began considering policies to establish differentiated compensation as one mechanism for retaining highly effective teachers. In March 2008, the Utah Legislature voted into law Senate Bill 281, a one-time $20 million appropriation for the 2008–09 school year for districts to implement a performance-based pay program.

The legislation lacked clear guidelines, however. Utah has no statewide system for evaluating teachers; instead, teacher evaluation is negotiated at the local level. Utah districts had to develop a performance-based pay program based on their current teacher evaluation system or develop a new one—all within a short time frame: Completed plans for implementing the performance-based pay program had to be submitted to the Utah State Office of Education by June 30, 2008. From the state's perspective, the $20 million effort was an opportunity for the locally developed performance-based pay programs to inform the development of a state-level framework.

SOUTHWEST COMPREHENSIVE CENTER

The Southwest Comprehensive Center at WestEd serves the states of Arizona, Colorado, Nevada, New Mexico, and Utah. It is one of 16 RCCs funded by the U.S. Department of Education to help build the capacity of state education agencies to implement the current provisions of ESEA and support districts and schools in efforts to improve student outcomes. The Southwest Comprehensive Center focuses on technical assistance for state assessment and accountability systems, state systems of support for district improvement and school improvement, high-quality teachers, high school improvement, and integration of technology.

In response to the need for guidelines and criteria, the Utah State Board of Education explored different options for evaluating teacher effectiveness. The goal was to provide districts with a framework for alternative compensation that rewarded instructional quality (among other features), while the districts would determine how to measure teacher performance and exactly how to reward it. The Utah State Board of Education convened a Differentiated Compensation Work Group, consisting of 20 representatives from key stakeholder groups who were tasked with devising a compensation program for the board's consideration. Meanwhile, the Utah Legislature's Education Committee met to consider differentiated compensation that could result in new statutory requirements.

The Utah State Board of Education provided the following guiding principles for the work group:

- To be inclusive
- To build consensus but have the courage to build something meaningful
- To be independent; to build a state framework with room for local detail
- To improve student achievement by improving the quality of instruction
- To develop a differentiated pay-for-performance system that rewards quality instruction
- To evaluate *teaching* (not *teachers*)
- To make student achievement an element (but not the only one) on which differentiated pay is based

Work group sessions unfolded in two phases. The first phase focused primarily on inputs: information gathering from experts and from research and current practices in other states. The second phase focused on outputs: drafting a framework and seeking feedback from stakeholders.

ASSISTANCE FROM THE COMPREHENSIVE CENTERS

The Utah State Board of Education approached the Southwest Comprehensive Center about providing assistance for the first phase of the task: gathering information to help inform the work group's discussions and ultimately its decision making. It was agreed that the Southwest Comprehensive Center would provide the following services:

- Assist in planning ongoing work group meetings.
- Conduct premeeting and postmeeting conference calls to assess progress.
- Identify prereadings on identified topics prior to each work group session.
- Assist in documenting the process.
- Review materials and documents.
- Develop and implement an outreach plan for stakeholder groups.
- Assist in conducting outreach activities.
- Provide ongoing consultation on processes and procedures.

After agreeing to provide assistance, the Southwest Comprehensive Center called upon the TQ Center for help in guiding the Utah State Board of Education as it investigated options for evaluating teacher effectiveness. The Southwest Comprehensive Center and the TQ Center had previously worked together to assist Utah in crafting some aspects of its highly qualified teacher state plan, which ultimately was approved by the U.S. Department of Education. This prior successful collaboration gave the TQ Center a high degree of credibility in the state, setting the stage for subsequent technical assistance.

The TQ Center, in partnership with the Southwest Comprehensive Center, provided the following services to the work group:

- Provision of expert presenters on identified topics at each work group session
- Participation in premeeting and postmeeting conference calls to help plan sessions and to debrief progress
- Recommendations of prereadings on identified topics prior to each work group session
- Identification of relevant research and practices

Technical Assistance

TQ Center expert presentations focused on the following topics:

- An overview of state pay-for-performance programs, including their histories, goals, types of incentives, and teacher pay reform efforts in eight states
- Ways of defining "highly effective teachers" and measures to evaluate classroom teaching, including classroom observations and student growth on standardized tests
- The advantages and limitations of growth and value-added models and data requirements for using them
- Issues and cautions to consider when designing a measure of teacher effectiveness, along with research-based suggestions for developing a system for evaluating teacher effectiveness

During the succeeding weeks, the Southwest Comprehensive Center coordinated additional topics and presenters for the work group. Because differential teacher compensation is a controversial issue, additional expertise was needed to appropriately address the stakeholders' concerns and garner their support. The work group engaged the topic of differentiated pay in a manner that allowed discussion and thorough examination of all facets of the development and implementation of a new plan for teacher compensation. Nevertheless, the focus remained on improving the quality of instruction and exploring ways to effectively measure it.

GUIDELINES FOR USING CLASSROOM OBSERVATIONS TO EVALUATE TEACHER EFFECTIVENESS

- There are no shortcuts to *reliable*, *valid* teacher evaluations.
  - Validity is threatened by poorly trained raters and by those who observe only once.
- The fewer indicators used, the greater the potential for errors.
  - The observation instrument should capture rich details of the teaching and learning cycle taking place in the classroom.
- The teacher evaluation system should be designed to *drive* effective instruction, not just measure it.
  - The system should measure what is important and valued by teachers, administrators, parents, and other stakeholders.
- The teacher evaluation system should include other outcomes in addition to scores from observations.
  - Evidence of student learning and information on the teacher's contributions to the school (e.g., as a teacher leader, as part of a teacher learning community, as a peer observer) also should be included.

LESSONS LEARNED

Designing a Successful Compensation Reform System: Lessons Learned

Compensation reform is not new. Many districts and states have experimented with it, with varying degrees of success. From these efforts, experts have identified those components that are important to have in place. One essential component for a successful differentiated pay system is buy-in from key stakeholders—teachers, bargaining units, school administrators, and the families they serve. That buy-in comes in large part from having a transparent system with high "face validity" (i.e., the system makes sense to stakeholders). Experience also has shown that allowing teachers to opt out of participation is important. Providing professional development to help teachers improve in the subject areas in which they are being evaluated is also critical.

Evaluating Teacher Effectiveness: Lessons Learned

In early conversations with members of the work group, it was apparent that relatively simple, straightforward solutions would be preferred. Why was a lengthy observation protocol needed to evaluate classroom teaching? Would just a few indicators do the job as well? The group learned a great deal about validity and reliability and their relationship to the length and number of the observations and the number of indicators. Moreover, they learned that their current state testing system was not ideal in terms of conducting value-added analyses. Although the complexity of evaluating teacher effectiveness seemed somewhat daunting, the group learned that the higher the stakes involved, the more crucial it was to ensure that all teachers receive the same fair and valid evaluation of their teaching performance and contributions to student learning.

USING VALUE-ADDED MODELS TO DETERMINE TEACHER EFFECTIVENESS

What value-added models *can* tell us about teacher effectiveness:

- They can identify teachers whose students are performing better or worse than expected.
  - This identification allows for accountability at the level of the classroom, not just the school.
- They can indicate that students are learning what is measured by the test.

What value-added models *cannot* tell us about teacher effectiveness:

- They cannot specify *why* a particular teacher's students have higher scores than expected.
  - Perhaps the teacher is focusing instruction narrowly on test content.
  - Perhaps the teacher is offering a rich, engaging curriculum that fosters deep student learning.
- Although they can measure *classroom* effects, they cannot measure *teacher* effects.
  - It is still not clear how much of a student's growth is attributable solely to the teacher's efforts and how much is due to peer effects, the availability of resources, school culture, and other influences.

The Technical Assistance Process: Lessons Learned

Openness to finding and listening to experts was key to the success of the Differentiated Compensation Work Group. The members' willingness to seek early assistance from the Comprehensive Center system put them in an excellent position to quickly plan for and conduct an ambitious agenda that would allow the state to make informed decisions. Having a good working relationship in place with both the regional and national comprehensive centers enabled Utah to know whom to contact and to be confident that the state would receive timely and useful assistance. The federally funded Comprehensive Center system also is an extremely cost-effective means of bringing expert knowledge and considerable resources and experience to bear on a particular issue. This system frees state funds for other aspects of a comprehensive solution.

EPILOGUE: THE PILOT PROGRAM

In late 2008, in order to balance the state budget, Utah rescinded the money supporting the pay-for-performance efforts, even though several districts already had developed programs. A $300,000 pilot program replaced the $20 million effort. Even though the full performance-based pay program was not carried through, the state learned a great deal about developing a feasible pay-for-performance option.

STRATEGIES FOR DEVELOPING A TEACHER COMPENSATION REFORM PLAN

On May 12, 2008, Robert Stonehill, Ph.D., chief program officer at Learning Point Associates, made a presentation to the Differentiated Compensation Work Group (Utah State Board of Education, 2008). In the presentation, titled "Differentiated Teacher Pay: Current Models and Lessons Learned," Dr. Stonehill mentioned the following strategies for developing a teacher compensation reform plan:

- Establish teacher (and teachers union) buy-in early and often.
- Consistently and transparently describe the intended outcomes.
- Identify and communicate compensation options; allow teachers to opt out.
- Combine pay incentives with leadership reforms and professional development so that performance pay is not a stand-alone program.
- Identify and secure long-term funding streams; supplemental funding often is required.
- Although the research is unclear about the optimal size of bonuses, ensure that they are large enough to matter to teachers.
- Develop fair and transparent measures of teacher performance.
- Use a variety of strategies that include, to a varying extent, all teachers (i.e., those in assessed and nonassessed subjects), other school personnel, and administrators.
- Consider student outcomes, teacher performance, and differentiated teacher responsibilities.
- Evaluate the program to demonstrate its effectiveness and return on investment.

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ADDITIONAL RESOURCES

Prereadings for Presentations

The following prereadings for the Differentiated Compensation Work Group presentations were selected by the TQ Center and Southwest Comprehensive Center staff.

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Podgursky, M. J., & Springer, M. G. (2007). Teacher performance pay: A review. *Journal of Policy Analyses and Management, 26*(4), 909–950.

TQ Center Resources

- Research Syntheses
  - *Approaches to Evaluating Teacher Effectiveness: A Research Synthesis*
    http://www.tqsource.org/publications/EvaluatingTeachEffectiveness.pdf
  - *The Link Between Teacher Quality and Student Outcomes: A Research Synthesis*
    http://www.tqsource.org/publications/LinkBetweenTQandStudentOutcomes.pdf
- TQ Research & Policy Briefs
  - *Teacher Quality and Student Achievement: Making the Most of Recent Research*
    http://www.tqsource.org/publications/March2008Brief.pdf
  - *Improving Instruction Through Effective Teacher Evaluation: Options for States and Districts*
    http://www.tqsource.org/publications/February2008Brief.pdf

- Tips & Tools Key Issues
  - *Using Performance-Based Assessment to Identify and Support High-Quality Teachers* http://www.tqsource.org/publications/keyIssue-June2008.pdf
  - *Using Value-Added Models to Identify and Support Highly Effective Teachers* http://www2.tqsource.org/strategies/het/UsingValueAddedModels.pdf
- Webcast
  - *Paying for Teachers' Performance—Strategies and Conditions for Success* http://www.tqsource.org/webcasts/payforteach/index.php

Research From Other Organizations

- *Performance-Pay for Teachers: Designing a System That Students Deserve* http://www.teachingquality.org/pdfs/TSreport.pdf
- *Alternative Teacher Compensation* (ERIC Digest No. 142) http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/16/92/16.pdf
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Websites

- Denver Public Schools' Teacher ProComp Program http://denverprocomp.dpsk12.org/

  This website describes Denver's teacher compensation program.
- Center for Educator Compensation Reform http://cecr.ed.gov

  The organization supports federal Teacher Incentive Fund grantees in their implementation effort and publishes guidance online.
- National Center on Performance Incentives http://www.performanceincentives.org

  This website provides research on the use of financial incentives for teachers to inform policy and practice.
- Consortium for Policy Research in Education http://www.wcer.wisc.edu/cpre/

  This consortium provides research on school finance, including evaluations of pay-for-performance programs.
- Educator Compensation Institute http://www.edcomp.org/

  Intended as a clearinghouse for information on educator compensation, this organization offers weekly and monthly bulletins containing news and events focused on educator compensation.

INTRODUCTION

Everyone, in every occupation, wants to be judged fairly and accurately—especially when those judgments have high-stakes consequences. Teachers are no different. They want their job performance to be assessed in a valid and transparent manner. They want to know they are being judged based on what is important to them, their students, and their community and that those judgments, in fact, reflect reality. They also want to have a good understanding of the kind of performance they should be striving for—what will get them an "A." When such assessments are a significant part of the decisions that impact teachers' economic stability (e.g., their salary or job security) or the quality of their work life (e.g., their classroom or school assignment), teachers and their legislative and union representatives will work very hard to ensure that the teacher evaluation process—including its designers and implementers—is fair, just, and of high quality.

Teachers (as well as those concerned with teacher quality) may worry that evaluation systems based only on classroom observations are too subjective or biased. A second worry is that more objective measures of performance such as value-added measures of student achievement may be too narrow, too complex, and perhaps even flawed gauges of what teachers contribute to their students' learning. When these very real concerns are coupled with leaders' communication missteps, unproductive controversy can erupt, confounding efforts to improve the current system of teacher evaluation. Acknowledging the need for a shared terminology, the TQ Center decided to develop a tool to enhance communication between teachers, administrators, local education agencies, state education agencies, and other stakeholders.

NEED FOR SHARED TERMINOLOGY

A foundation of productive and open communication is to ensure that everyone involved has a common understanding of the words used to describe the dimensions of teacher quality and effectiveness. One person's *qualified* teacher is another person's *effective* teacher, even though the two words can mean very different things. Further, the same word can take on different meanings in different contexts. To remedy this situation, the TQ Center developed the *Communication Framework for Measuring Teacher Quality and Effectiveness* (Coggshall, 2007). This framework describes the terms used in the conversation about teacher quality and effectiveness and provides guidance on building a common understanding of those terms.

USING THE *COMMUNICATION FRAMEWORK*

The *Communication Framework* can be used effectively in three steps. First, users should first familiarize themselves with the framework and take stock of their goals, including their reasons for wanting to measure teacher quality or effectiveness. Users should then identify the stakeholders whose buy-in is needed in order to improve teacher evaluation systems and determine when the design and communication goals have been accomplished. Communication Tool 1 in Appendix B of the framework can help with this process.

Second, users should work with a planning team to choose a communication strategy, including how they will assess outcomes. Discussions on how to use or adapt the communication tools in Appendix B of the framework during the design and implementation stages can guide the development or reform of teacher evaluation systems. Users also should determine how

they will ensure that participants have a common understanding of the dimensions of teacher quality.

Third, the framework can be used as a reference during the change process that results from the teacher evaluation. Participants can refer to the definitions of key measurement terms, such as *validity, reliability, comprehensiveness, credibility*, and *utility*, in Appendix A of the framework. Additional TQ Center resources for this important work are listed in Appendix C of the framework as well as on the TQ Center website (http://www.tqsource.org/).

Teachers should be involved in all steps of the evaluation process, and their questions and concerns should be considered and responded to. Such open and productive communication builds a necessary resource: trust. In contrast, poor communication has too often led to poor design or a lack of trust that has scuttled efforts to improve evaluation practices, especially when those evaluations have been tied to teacher compensation. The TQ Center's *Communication Framework* is a useful tool for building trust, enhancing communication, and creating processes for improving the quality of teaching.

REFERENCE

Coggshall, J. G. (2007). *Communication framework for measuring teacher quality and effectiveness: Bringing coherence to the conversation*. Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved September 3, 2009, from http://www.tqsource.org/publications/NCCTQCommFramework.pdf

Ohio's Teacher Evaluation Guidelines

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INTRODUCTION

In August 2008, Regional Educational Laboratory (REL) Midwest and the TQ Center joined forces to support the Ohio Department of Education (ODE) in an effort to develop state-level teacher evaluation guidelines. A legal mandate (Ohio Revised Code 3319.112) had charged the state with creating evidence-based teacher evaluation guidelines that align with the state's ongoing efforts to improve teacher effectiveness and human capital management. In Ohio, improving teacher quality is considered a systemic effort that addresses all stages of the career continuum, including recruitment, retention, and teacher evaluation or performance management. To that end, Ohio used this legal charge as a chance to work with stakeholders across the state to improve overall teacher quality and address this important component of a human capital management system.

GUIDELINES FOR EVALUATING TEACHER PERFORMANCE

Processes for addressing teacher evaluation systems differ widely by state, depending in part on whether the state has a collective bargaining agreement. Ohio requires collective bargaining, meaning that teacher evaluation systems are subject to collective bargaining at the local level. Therefore, at the outset of this process, the state engaged local union officials to help create a set of meaningful guidelines that would be useful for districts. The goal for the state was to develop guidelines that responded to the legal mandate, were evidence-based, and were feasible to put into practice. On the other hand, the guidelines also had to be flexible enough that a local education agency could customize them to its specific context.

REL MIDWEST

REL Midwest at Learning Point Associates is one of 10 regional educational laboratories funded by the U.S. Department of Education's Institute of Education Sciences. It serves the educational needs of Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin. The TQ Center frequently joins forces with REL Midwest to provide targeted assistance to those states.

REL Midwest and the TQ Center met with ODE staff to plan a series of meetings that would convene a range of stakeholders. Three meetings were planned—with a "writing team" made up of teachers; school, district, and state administrators; grade and content-area specialists; and several union representatives. The group's charge was to develop not only the state-level guidelines but also an annotated bibliography of useful research for districts to access as well as a list of teacher evaluation exemplars used in other districts and states.

Before any district or state can develop guidelines for evaluating teacher performance, two very important questions must be answered:

- What is the definition of *teacher effectiveness*?
- What is the purpose of teacher evaluation?

ODE staff and the writing team discussed and developed consensus on these questions at the initial meeting. To address the first question, the group adapted the five-part definition offered by Goe, Bell and Little (2008) to the state's context. Responses to

the second question varied and were broad in scope, partly because the use or purpose of teacher evaluation tends to vary across districts in any particular state. For example, teacher evaluation may be used for salary purposes, opportunities for professional growth, or summative accountability purposes. Generally speaking, the group agreed that Ohio teacher evaluation should be used primarily as an opportunity for professional growth but that some level of accountability would have to be incorporated in each district's evaluation system.

Over the course of the three meetings, the following important themes emerged to inform the final guidelines:

- Teacher evaluation should be used as a tool to improve instruction and provide professional growth, not as a "gotcha."
- Multiple measures for collecting evidence of teacher performance are vital.
- Teacher evaluation should be "leveled"; for example, a new teacher should not be evaluated in the same way that a veteran teacher is evaluated.

For more information about the revision of teacher evaluation guidelines in Ohio, view ODE's *Teacher Evaluation Resources* webpage (http://education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=523&ContentID=66859&Content=71813). The state also is considering ways to disseminate the information and provide districts with tools and resources for implementation.

NEW TQ CENTER RESOURCE

Although states and districts generally strive to institute high-quality teacher evaluation systems, the process for getting there can be a challenge. To that end, TQ Center staff have collected information from several districts (Chicago Public Schools, Denver Public Schools, and New York City Department of Education) and states (Minnesota Department of Education, Ohio State Board of Education, and South Carolina Department of Education) about criteria for developing, adapting, and implementing teacher evaluation systems. This information addresses the following questions:

- What was the impetus for change?
- Why did you decide to make changes to your teacher evaluation system?
- What were your goals for the new system that were not being met by the old system?
- What steps did you take as you made these changes?
- What challenges did you face?
- How did you respond to these challenges?
- What lessons can you share with other states and districts interested in making changes to their teacher evaluation policies?

The collected information appears in a new TQ Research & Policy Brief titled *Determining Processes That Build Sustainable Teacher Accountability Systems.* It is available online (http://www.tqsource.org/publications/October2009Brief.pdf).

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Goe, L., Bell, C., & Little, O. (2008). *Approaches to evaluating teacher effectiveness: A research synthesis.* Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved September 3, 2009, from http://www.tqsource.org/publications/EvaluatingTeachEffectiveness.pdf

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