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# America's Challenge: Effective Teachers for At-Risk Schools and Students

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# Contents

<b>Introduction</b> by Carol A. Dwyer, Ph.D.	<b>1</b>
<b>Chapter 1.</b> Linking Teacher Quality and Student Outcomes by Laura Goe, Ph.D.	<b>7</b>
<b>Chapter 2.</b> Innovation Configurations to Improve Teacher Preparation in Reading, Classroom Behavior Management, and Inclusive Practices by Daniel J. Reschly, Ph.D., Susan M. Smartt, Ph.D., and Regina M. Oliver	<b>25</b>
<b>Chapter 3.</b> The Teacher Preparation → Teacher Practices → Student Outcomes Relationship in Special Education by Laura Goe, Ph.D.	<b>45</b>
<b>Chapter 4.</b> Implementing NCLB: State Plans to Address the Challenge of Equitable Distribution of Effective Teachers by Tricia Coulter, Ph.D.	<b>55</b>
<b>Chapter 5.</b> Emerging Strategies and Practices to Improve Teacher Quality in At-Risk and Hard-to-Staff Schools and Subject Areas by Courtney Rowland and Michael Allen, Ph.D. <ul style="list-style-type: none"><li>• How the Fifth Largest County in the Country Recruits and Retains Teachers: A Case Summary of the Clark County School District</li><li>• Recruiting and Retaining Teachers in Shaw, Mississippi: How a Small, Rural District Staffs Its Classrooms</li></ul>	<b>71</b>
<b>Chapter 6.</b> Getting Started: A Survey of New Public School Teachers on Their Training and First Months on the Job by Jonathan Rochkind, John Immerwahr, Ph.D., Amber Ott, and Jean Johnson	<b>89</b>
<b>Chapter 7.</b> The National Comprehensive Center for Teacher Quality: A Resource for Systemic Improvement in the Equitable Distribution of Teachers by Carol A. Dwyer, Ph.D., and Amy Jackson	<b>105</b>
<b>Glossary</b>	<b>109</b>

# CHAPTER 4



*Implementing NCLB: State Plans to Address  
the Challenge of Equitable Distribution  
of Effective Teachers*



## Chapter 4

# Implementing NCLB: State Plans to Address the Challenge of Equitable Distribution of Effective Teachers

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### The Challenge of Equity of Opportunity

The promise of America's education system is a high-quality education for all students, regardless of race or ethnicity, geographic location, economic status, or disability. The challenge for America's education system is to keep that promise. This chapter highlights student population changes that have occurred

in the American school system related to the student populations it serves and how states are responding to these changes as outlined in their revised highly qualified teacher state plans submitted to the U.S. Department of Education in the summer of 2006.

The types of schools comprising America's public education system and the students populating those schools have changed dramatically over the last several decades. Between 1972 and 2005, the number of public school students considered to be part of a

Table 1. Concentration of Enrollment by Race/Ethnicity and Poverty: 2005

Percentage of Fourth-Grade Students in the School Eligible for Free or Reduced-Price Lunch: 2005					
	10% or less	11%–25%	26%–50%	51%–75%	More than 75%
<b>Overall</b>					
White	21	23	32	19	5
Black	4	6	18	24	48
Hispanic	4	6	16	24	49
Asian/Pacific Islander	27	19	21	16	16
American Indian	4	8	21	31	36
<b>Central City</b>					
White	17	20	30	22	12
Black	1	3	14	20	62
Hispanic	2	4	10	20	64
Asian/Pacific Islander	21	12	18	22	27
American Indian	9	13	24	26	29
<b>Rural/Small Town</b>					
White	9	18	40	27	5
Black	2	5	15	39	39
Hispanic	3	6	24	38	29
Asian/Pacific Islander	21	18	32	21	7
American Indian	1	3	17	36	44

Black includes African American; Hispanic includes Latino; Pacific Islander includes Native Hawaiian; and American Indian includes Alaska Native. Race categories exclude Hispanic origin unless specified.

Source: National Center for Education Statistics, 2007b

Note: Detail may not sum to totals because of rounding. The National School Lunch Program is a federally assisted meal program. To be eligible, a student must be from a household with an income at or below 185 percent of the poverty level for reduced-price lunch or at or below 130 percent of the poverty level for free lunch.

racial or ethnic minority group rose by 22 percentage points, and there is a clear difference in distribution of these students by poverty indicators (National Center for Education Statistics, 2007a). Minority students are overrepresented in schools with the highest poverty rate (schools with more than 75 percent of the student body eligible for free or reduced-price lunch). As seen in Table 1, almost half of all black and Hispanic students who are eligible for free and reduced-price lunch are enrolled in our country's highest poverty schools. This representation increases for central city schools where more than 60 percent of the black and Hispanic students are enrolled in the highest poverty schools.

The persistent achievement gaps between various racial and ethnic groups are evidence of the challenges these students face—challenges this nation is not yet addressing. The National Assessment of Educational Progress (NAEP) indicates that the achievement gaps between white and black students and white and Hispanic students in reading and mathematics have shown little change since the early 1990s, as illustrated in Table 2.

Table 2. White-Black and White-Hispanic Gaps in Average Reading and Mathematics Scores by Grade: 1990-2005

Subject, Race/Ethnicity and Grade	1990	1992	1994	1996	1998	2000	2002	2003	2005
<b>Reading</b>									
<b>White-Black Gap</b>									
Grade 4	–	32	38	–	32	34	30	31	29
Grade 8	–	30	30	–	26	–	27	28	28
<b>White-Hispanic Gap</b>									
Grade 4	–	27	35	–	32	35	28	28	26
Grade 8	–	26	24	–	27	–	26	27	25
<b>Mathematics</b>									
<b>White-Black Gap</b>									
Grade 4	32	35	–	34	–	31	–	27	26
Grade 8	33	40	–	41	–	40	–	35	34
<b>White-Hispanic Gap</b>									
Grade 4	20	25	–	25	–	27	–	22	20
Grade 8	24	28	–	30	–	31	–	29	27

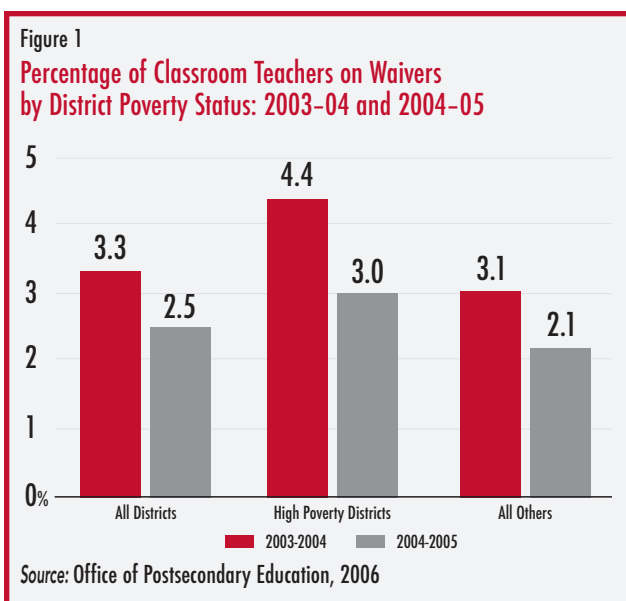
– Not available (tests not conducted in all grades for all years).

Source: National Center for Education Statistics, 2007c

Note: Race categories exclude persons of Hispanic ethnicity. The score gap is determined by subtracting the average black or Hispanic score, respectively, from the average white score. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted in 1990–94. Beginning in 2002, the NAEP national sample for Grades 4 and 8 was obtained by aggregating the samples from each state, rather than by obtaining an independently selected national sample. As a consequence, the size of the national sample increased, and smaller differences between years or between types of students were found to be statistically significant than would have been detected in previous assessments.

Research has clearly shown that to ensure equity of educational opportunity, students in our country's most challenging schools should be served by our strongest teachers, yet this is rarely the case. Many researchers have found that high-poverty schools are often populated with the least qualified teachers (Ingersoll, 2002; Lankford, Loeb, & Wyckoff, 2002; Peske & Haycock, 2006).

According to the Secretary's Fifth Annual Report on Teacher Quality (Office of Postsecondary Education, 2006), high-poverty school districts have higher numbers of teachers who are not highly qualified (teachers on waivers) compared to other districts (see Figure 1). Although these data show improvement from the previous year, the challenge is still evident, and the gaps are still dramatic.



## Federal Requirements and State Responses

With the passage of the No Child Left Behind (NCLB) Act in 2001, the federal government codified requirements for teachers to be considered *highly qualified* and required all teachers to be highly qualified in accordance with those criteria by the 2005–06 school year. An additional provision of the law requires that states submit annual reports documenting their

efforts and actions related to highly qualified teachers (HQTs), including the following:

... steps that the state educational agency will take to ensure that poor and minority children are not taught at higher rates than other children by inexperienced, unqualified, or out-of-field teachers, and the measures that the state educational agency will use to evaluate and publicly report the progress of the state educational agency with respect to such steps. (NCLB, Section 1111[b][8][C])

In the summer of 2006, the U. S. Department of Education required states to submit HQT state plans and specified that these reports include an equity plan to ensure that poor or minority children are not taught by inexperienced, unqualified, or out-of-field teachers at higher rates than other children. For a plan to be accepted, the state must be able to identify where inequities in teacher assignments exist, delineate specific strategies whereby the identified inequities would be addressed, and provide evidence for the probable success of those strategies.

According to the HQT plans, states vary in the differences between high- and low-poverty and high- and low-minority schools in the percentage of core academic courses taught by HQTs. In fact, some states reported no significant difference or even a higher percentage of core academic classes being taught by HQTs in high-minority schools (e.g., Arkansas) and high-poverty schools (e.g., Arkansas, Vermont, and West Virginia), although these differences are usually very small (see the HQT revised state plans at [www.ed.gov/programs/teacherqual/hqtplans/index.html](http://www.ed.gov/programs/teacherqual/hqtplans/index.html)). Generally, however, states continue to struggle with ensuring that poor and minority children are not taught at greater rates by teachers who are not highly qualified.

Almost universally, the problem is more pronounced in secondary schools than in elementary schools. Although this may demonstrate a more defined challenge of finding, recruiting, and retaining secondary school teachers as compared to elementary

school teachers, it may also be an artifact of the structure of our school system and the NCLB requirements for HQTs. In other words, in order to be considered highly qualified, teachers must demonstrate subject competency. Secondary school teachers are certified to teach specific subjects, which offers somewhat less flexibility compared to elementary school teachers, who are not certified in the same way. The problems associated with efforts to have all classes taught by HQTs are exacerbated in rural districts where one teacher may have responsibility for teaching several courses. This is often due to a combination of factors, including the small number of students, the relative geographic isolation of the school, and consequent fiscal constraints. Additionally, states' analyses of their data reveal that, in most states, schools not making adequate yearly progress (AYP) are more likely to have more teachers who are not highly qualified teaching core academic classes than are other schools.

### **Challenges and Actions for Equitable Teacher Distribution**

Why is there such inequity in the distribution of HQTs, and what can be done about it? At-risk schools (i.e., high-poverty and high-minority schools with low percentages of HQTs) generally face at least three interrelated challenges. First, they have trouble hiring enough HQTs, and then, they have trouble retaining them. Finally, as a consequence of the first two challenges, they have a larger number of teachers who are not highly qualified on staff. It is important to note that, in many states, the problem is specific to certain content areas. Although some states have an overall shortage of HQTs, other states struggle with staffing particular classes and subject areas with HQTs. The requirement that states report the percentage of core academic classes not being taught by HQTs, rather than requiring that these data be reported at the school or district level, has highlighted these challenge areas for some states because the method does not reveal the specific schools or districts that are having trouble staffing specific subjects with HQTs. Local education agencies (LEAs) are required

to report on teachers' professional qualifications by degree level, the percentage of teachers with emergency/provisional certification, and the percentage of core academic courses taught by HQTs for high- and low-poverty schools in their LEA report cards; however, the requirement to report percentages makes it difficult to identify specific challenge areas. Policies enacted and actions taken to address these challenges would be most effective when targeted at the specific challenges that states—and their districts and schools—face. This only can be determined using accurate, reliable, and appropriate data.

Goe (2006) provides an excellent overview of the types of data states should collect and appropriate analyses that should be performed on those data to best define and respond to states' equitable teacher distribution challenges. Examples of the types of data that a robust data system should include are as follows:

- Teacher information including certification, education level, experience, completion of specific coursework, and required professional development.
- Course-level teaching assignments by school, connecting teachers to classes taught.
- School-level data on teacher turnover rate and on the characteristics of teachers who have left.
- Teacher attrition data to determine whether teachers move to another school or leave the profession.

Additionally, these data should be longitudinal. Cross-sectional data do not supply policymakers with the information they need. Knowing that a state does not have enough teachers in one specific timeframe does not provide that state with solid information about the reasons behind the shortage. Were they not able to find qualified teachers to hire? Were they hiring enough teachers, but those teachers subsequently left? With timely information based upon a robust data system, states can move toward taking appropriate action.

## State Equity Plans

In the summer of 2006, all states were to submit their HQT revised state plans as required by NCLB. As part of these plans, states were specifically required to submit an equity plan, in which they outlined their strategy to ensure that poor or minority children are not taught by inexperienced, unqualified, or out-of-field teachers at higher rates than other children.

With a robust data system as its foundation, a state should be able to identify its strongest areas of need. Sound longitudinal data sets would also help states identify possible causes for patterns of inequitable distribution of teachers and suggest plans of action most likely to be effective. A strong equity plan should include a clear identification of the challenge areas, a statement of goals and appropriate benchmarks, a demonstration of the state's capability to track progress toward the goals, and a set of initiatives clearly targeted to the areas of challenge. Each targeted initiative should also include specific information about how the initiative addresses the challenge area and what resources will be committed to the initiative.

Areas of challenge for a state could include recruitment, retention, and training of existing teaching personnel, and initiatives to ameliorate these often-interrelated problems could be numerous. To assist states in their efforts to write comprehensive plans, the Council of Chief State School Officers created a template for state equity plans. The template asks states to consider the following eight elements (Prince, 2006):

- The development of adequate and appropriate data and reporting systems.
- The coordination of effective teacher preparation to build a pipeline of prospective teachers for at-risk schools.
- The creation and accessibility of systems through which the incidence of out-of-field teaching is reduced.
- The creation of a system for recruiting HQTs to at-risk schools and establishing systems of support and training that encourage them to stay in these schools.
- The creation of targeted, effective professional development to provide teachers with ongoing information, resources, and training to continually prepare them to address the ongoing challenges and changes in these schools and populations.
- The establishment of a system whereby teachers obtain the specialized knowledge and skills they need to be effective with the students in these schools.
- The creation and maintenance of positive working conditions that contribute to teacher retention.
- Policy coherence, so all policies put into effect work in a coordinated, nonredundant, and noncounteractive manner.

When focusing their resources, states should consider the specific challenges they have identified related to the equitable distribution of HQTs and how they might effect the greatest change.

**A strong equity plan should include a clear identification of the challenge areas, a statement of goals and appropriate benchmarks, a demonstration of the state's capability to track progress toward the goals, and a set of initiatives clearly targeted to the areas of challenge.**

At-risk schools are generally at a disadvantage for hiring highly qualified, experienced, and effective teachers. In addition, teachers tend to leave these schools once they have tenure and sufficient longevity to give them preference for transfer. Although a valuable ultimate goal for the teaching profession would be for these positions to become sought-after—for their value to society and for the professional challenges they offer—at-risk schools are not

## New California Law Helps Struggling Schools Hire the Best Candidates

The following information is an excerpt from the Office of the Governor of California (2006):

Students at low-performing schools have the greatest need for high-quality educators. Currently, school principals must give existing teachers first priority for open positions. They can be forced to hire voluntary transfers, who may not be performing well at another school.

SB 1655 reforms teacher transfer policies to:

- Provide that no K-12 school ranked 1-3 on the Academic Performance Index may be forced to accept the voluntary transfer of any teacher that is not acceptable to the school.
- Allow principals to hire any qualified applicant, not just voluntary transfers, after April 15 of the year before the school year's commencement.

*School principals are ultimately responsible for student success. SB 1655 lets principals say no to teachers who aren't the right fit, and hire promising teachers earlier (emphasis added).*

California SB 1655 became effective January 1, 2007.

presently an attractive teaching option when compared to other schools. States outlined a variety of initiatives to address this challenge in their HQT state plans.

### Financial Incentives

Districts that set salary systems with no incentive for working in at-risk schools perpetuate teacher quality disparities. There is little economic reason for teachers to take on the challenges associated with working in a high-poverty school if they can live in the same area with approximately the same commuting time and make the same amount of money working in a school that is not high poverty.

Districts offer a variety of financial incentives for teachers to work in at-risk schools. The most common are federal or state loan-forgiveness programs. Teachers are eligible for forgiveness of up to \$17,500 worth of federal student loans if they work in a high-need subject at a hard-to-staff school (Stroup, 2004). Many states have implemented additional loan forgiveness programs for students who commit to teaching in at-risk schools for a minimum period of time. Other financial incentives include housing assistance and signing bonuses.

Having more teachers entering the pipeline is sometimes discussed as a remedy for the overall teaching shortages in certain fields, such as science, mathematics, and special education. States are also addressing specific challenges faced by teachers in at-risk schools through context-specific requirements and programs.

**Urban Education.** New Jersey and Connecticut have programs in place to prepare teacher education students to better understand the culture and contexts specific to urban schools.

- With funding from a federal Teacher Quality Enhancement grant, the New Jersey Department of Education in partnership with The College of New Jersey created an urban education program. The goal of the

program is to provide teacher candidates with an understanding of the effects of an urban context on student learning and to train them in culturally responsive pedagogy. Similar programs have been established at Montclair State University and Rutgers University–Newark. For information on the Montclair program, visit the Montclair State University College of Education and Human Services website (<http://cehs.montclair.edu/academic/cop/njcue.shtml>). For information on the program at Rutgers University, visit the Department of Urban Education website (<http://edu.newark.rutgers.edu>).

- In Connecticut, the Yale Urban Teaching Initiative is a one-year graduate program with similar goals. Graduates of the program receive a master’s degree in urban education studies and a Connecticut Initial Educator License to teach in Grades 7–12. These teachers must commit to teach in a public middle or high school in one of the state’s highest need school districts for three years.

**Rural Education.** Alaska presents a unique set of challenges for a teaching force with its extremely rural setting and in terms of meeting the needs of its Alaskan Native populations. The Alaska Rural Systemic Initiative and native villages in the five regions of the state have collaborated to develop “culture camps.” The camps help non-native teachers incorporate native ways of knowing into the curriculum. Teachers, native elders, and students attend. For information on Alaska’s Rural Systemic Initiative, access the state’s equity plan online ([www.ed.gov/programs/teacherqual/hqtplans/ak.doc](http://www.ed.gov/programs/teacherqual/hqtplans/ak.doc)).

### Teacher Retention

The ability to retain teachers, in general, is an issue in the teaching profession. This challenge is exacerbated in at-risk schools from which teachers often transfer once they have gained tenure and longevity. A number of states have retention efforts already in place. Establishing and financially supporting a

system of induction—specifically using a mentoring component—is one frequent way of addressing retention.

- In South Carolina, the Division of Educator Quality and Leadership (DEQL) and the Center for Educator Recruitment, Retention, and Advancement (CERRA) collaborated to develop state induction and mentoring guidelines and work together to promote and support mentor training. Their Foundations for Mentoring training supports quality learning opportunities to help teachers develop mentoring skills. CERRA also offers training in cognitive coaching from the Center of Cognitive Coaching. For more information on these efforts, visit the South Carolina Department of Education website ([www.scteachers.org/cert/mentoring.cfm](http://www.scteachers.org/cert/mentoring.cfm)).
- Other states have looked more broadly at teacher working conditions, a primary reason identified by many teachers for leaving the profession. North Carolina and Nevada are two states that have completed educator surveys on working conditions. North Carolina has conducted this survey since 2002 and has used the results to inform changes to policy and practice. For information on North Carolina's efforts related to teacher working conditions, visit the Governor's Teacher Working Conditions Initiative website ([www.northcarolinatwc.org](http://www.northcarolinatwc.org)).

### Other Efforts

Some states have implemented initiatives designed to return retired HQTs to the classroom without jeopardizing their pensions. In Maryland, for example, Senate Bill 633 allows for retired teachers and principals to return to their profession without affecting their pension payments if they work in high-poverty or low-performing schools and teach hard-to-staff subjects. To be eligible, retirees must have been certified to teach in Maryland and have verification of satisfactory or better performance in their last assignment prior to retirement.

Several states are focusing effort and resources on low-performing schools or on schools in need of improvement. The efforts are comprehensive, providing specialists and technical assistance or support teams.

- Louisiana assigns District Assistance Teams (DATs) to provide on-site assistance to schools in need of improvement. Each DAT includes specially trained staff from the local education agency and local universities. The team takes a leadership role for the schools, conducting a needs assessment, gathering and analyzing data, implementing an improvement plan, and evaluating the impact of initiatives (see [www.louisianaschools.net/lde/RegionVII/728.html](http://www.louisianaschools.net/lde/RegionVII/728.html)).
- North Carolina provides Turn Around Teams that undertake a similar function for many of its low-performing schools. For information on North Carolina's Turn Around Teams, download the state's equity plan online ([www.ed.gov/programs/teacherqual/hqtplans/ncep.pdf](http://www.ed.gov/programs/teacherqual/hqtplans/ncep.pdf)).

### Highlighting Two State Plans

The following section provides a review of efforts being made by two states to ensure that at-risk children are not taught by inexperienced, unqualified, or out-of-field teachers at higher rates than other children. These states were selected for inclusion in this report because in their HQT state plans, they demonstrated a clear use of their collected data to target their efforts and resources on identified areas of challenge. While many state plans included certain targeted initiatives, other plans described programs without a specific focus on a challenge area.

These states are not the only ones to develop quality state plans, nor are they the only states that analyzed or used their data for targeted initiatives. They are included as examples to illustrate ways states are using data systems to examine teacher assignment inequities and address the identified challenges.

## Delaware

**Data Systems.** The primary strength of the Delaware state equity plan lies in the state's exceptionally robust relational data systems through which the state department of education can collect and analyze HQT data at the classroom, teacher, and student levels.

The Delaware Educator Data System (DEEDS) houses teacher information including employment history, years of experience, certification, licensure, educational background, Praxis scores, HQT status, progress in the statewide new teacher induction program, and other data elements. To determine the status of each class relative to HQT status, teachers who teach core academic classes complete an electronic teacher quality survey through DEEDS. Additionally, each teacher has a unique identifier through the state personnel system, and DEEDS links with this system. Each student also has a unique longitudinal identifier.

Student and teacher information and class assignments are maintained through eSchoolPLUS (eSP), the statewide pupil accounting system. Classes are coded according to the NCLB core academic subjects and further identified as special education, bilingual, or ESL. Other databases contain information on school accountability, poverty status, and other student and school characteristics, all of which can be analyzed in conjunction with data on the highly qualified status of teachers. The data systems allow for analysis of teacher quality data at the class, teacher, and student levels, so Delaware is able to determine distribution of teachers within schools, as well as across schools.

**General Equity Findings.** According to the Delaware state plan, during the 2005–06 school year, 79.2 percent of content area courses were taught by HQTs. Of the 20.8 percent of classes not taught by an HQT, however, over 75 percent could not be accurately classified because of incomplete information in eSP, districts not verifying completed teacher quality surveys, teachers

not taking or completing the teacher quality survey, and other issues related to data incompleteness. Delaware has addressed data quality issues, and the 2006–07 data collection had dramatically fewer incompleteness issues.

Overall, Delaware found discrepancies in the percentage of classes taught by HQTs based on poverty and minority status in both elementary and secondary schools. In addition to noting general discrepancies *between* schools based on these characteristics, the Delaware data systems allow for analysis of data *within* a school to determine the likelihood of traditionally underserved student populations being assigned to classes with non-HQTs. In other words, Delaware is able to determine whether classes have greater concentrations of students from identified subgroups and whether these classes are more likely to have non-HQTs or less experienced teachers (defined as having less than four years of teaching experience).

**Delaware data systems allow for analysis of data *within* a school to determine the likelihood of traditionally underserved student populations being assigned to classes with non-HQTs.**

Using this level of data analysis, Delaware looked at comparisons between the following subgroups: low- and high-poverty students, African American and white students, Hispanic and white students, students with and without disabilities, and English language learners (ELLs) and non-ELLs. Delaware also analyzed data for elementary, middle, and high schools and for inequities by school improvement status. The 2005–06 findings are summarized below:

- Overall, higher percentages of core academic classes were taught by teachers who were not highly qualified at secondary schools than at elementary schools. The discrepancy was due more to a large number of certified teachers teaching out-of-field than to a large

number of noncertified teachers. Also, a high number of certified secondary special education teachers had not demonstrated competency in the subject(s) taught. Almost half of the out-of-field secondary-level teachers were located in two LEAs.

- Students with disabilities, low-income students, African-American students, and Hispanic students were more likely to be taught by teachers who were not highly qualified or less experienced teachers. The majority of these discrepancies were in secondary schools.
- ELLs were more likely to be taught by teachers who were not highly qualified or less experienced teachers. Most discrepancies existed in middle and high schools.
- The data indicated that certain districts and schools showed greater differences than others in the percentage of core academic classes being taught by teachers who were not highly qualified.
- African-American students, Hispanic students, students with disabilities, and ELLs in middle and high schools under school improvement were more likely to be taught by teachers who were not highly qualified.

To further inform their efforts, the Delaware Department of Education carefully considered its annually commissioned study on personnel hiring practices and attrition issues conducted by the Institute for Public Administration at the University of Delaware. Some important findings from this study were as follows:

- Personnel directors cited a lack of qualified candidates as the main reason for teacher shortages.
- Contractual barriers hinder the ability to offer timely contracts to teachers.
- Funding and support for teacher recruitment varies greatly.

**Goals and Strategies.** The analyses led Delaware to develop six short-term goals and one long-term goal to meet equitable distribution challenges. For each goal,

Delaware developed a response for which measurable targets, strategies and timelines, and an evaluation plan were designated. For example, one of their short-term goals is to reduce the incidence of classes for students with disabilities being taught by teachers who are not highly qualified, particularly in schools under school improvement at the secondary level. The designated target was for 100 percent of NCLB content area classes to be taught by HQTs by June 2007. To meet this goal, the SEAs established priority LEAs and schools with significant numbers of students with disabilities in classes taught by teachers who are not highly qualified. Targeted monitoring and technical assistance, including site-based needs analyses and planning, was to be provided for these priority LEAs and schools. Success will be evaluated through longitudinal analyses of the percentage of students with disabilities in classes not taught by an HQT for all LEAs and schools. Delaware's other short-term goals are as follows:

- Significantly improve data completeness and data quality in 2006–07.
- Eliminate out-of-field teaching at the secondary level.
- Reduce the incidence of non-HQT classes for low-income and minority students, particularly within secondary schools under school improvement and within specific LEAs.
- Reduce the incidence of non-HQT classes for ELL students.
- Reduce LEA policy barriers to and ineffective practices for teacher recruitment.

Delaware's long-term goal is to ensure that all students, regardless of poverty status, racial/ethnic background, language proficiency, disability, and geographical location, have equitable access to highly qualified, experienced teachers. The target is for all student subpopulations to have equitable access to NCLB content area classes taught by experienced HQTs by June 2010. The strategy is for the SEA to work with the state legislature to fund incentives for experienced HQTs to teach in hard-to-staff and low-performing schools.

Advancement towards the goal will be evaluated using longitudinal analyses of the percentage of low-income, non-low-income, minority, and white students in classes not taught by an experienced HQT in all LEAs and schools.

## Virginia

**Data Systems.** The Virginia Department of Education has created a set of comprehensive and interconnected databases related to teacher quality through collaborative efforts between higher education institutions and local school divisions. Through the Instructional Personnel and Licensure (IPAL) system, Virginia collects information on the number and types of courses being taught by HQTs for each school, as well as teacher license type, endorsement, and assignments.

Through the Teacher Education and Licensure system (TEAL), Virginia is able to track information on all licensed personnel in the state including licensure application data, endorsement areas, years of service, licensure expiration, evaluations, employment history, route to licensure, recognitions received, courses and grade levels taught, and highly qualified status. In addition, the TEAL system is able to import and store Virginia assessment test scores and scores for PRAXIS I, PRAXIS II, and School Leadership assessments and is able to interface with the National Association of State Directors of Teacher Education and Certification (NASDTEC) clearinghouse to download information relative to action against licenses.

Virginia is currently piloting the next iteration of TEAL, TEAL II. This new system will include information for students currently enrolled in and graduating from teacher preparation programs to improve the state's ability to identify trends in teacher preparation, placement, and retention. It will also include quantitative data on schools in Virginia (e.g., school size, location, demographic and poverty indicators), along with qualitative indicators (e.g., teacher empowerment, administrative leadership, and parental involvement). TEAL II also will include reporting and data analysis functions.

**General Teacher Equity Findings.** Virginia has made great advances toward the goal of having HQTs in every classroom. Between the 2002–03 and 2004–05 school years, the percentage of core academic classes being taught by teachers who were not highly qualified dropped from 16.5 percent to 4.4 percent. The gap in non-HQTs teaching core academic classes in high-poverty versus low-poverty schools was 3.7 percent, although the gap in secondary schools was larger than it was in elementary schools (4.14 percent and 3.3 percent, respectively).

Virginia completed further analyses of its data in accordance with the structure of its state school system. Virginia's school system is divided into eight superintendents' regions all containing multiple school divisions. In order to most effectively and efficiently target resources to the regions with the greatest challenges, data for each region were analyzed separately. Regional data were reported for percentage of high-poverty schools, percentage of high-minority schools, percentage of classes taught by HQTs, percentage of inexperienced teachers, and percentage of schools making AYP. Data were also analyzed to determine the distribution of HQTs at the elementary, middle, and high school levels, by course.

The state plan included strategies targeted at the highest need regions based on differences noted through this data analysis. Region VIII showed challenges in each indicator category: 80.36 percent of its schools are classified as high-poverty—the highest percentage in the state; 55.36 percent of its schools have high minority enrollment; 7.5 percent of classes are taught by non-HQTs—the second highest percentage in the state; and 19.64 percent of the schools are not making AYP. While Region VIII had challenges across all measured variables, other regions had more specific challenge areas. The data analyses allowed Virginia to use target strategies to address teacher quality needs for high-needs regions, schools, and divisions.

**Virginia's Goals and Strategies for Region VIII.** To illustrate Virginia's use of data to target its resources and efforts, initiatives implemented to address the many challenges facing Region VIII are detailed here. Region VIII is comprised of 13 mostly rural school divisions, which include 16 schools that have been designated as hard to staff. Targeted strategies for Region VIII include the following:

- Additional funds for mentoring programs have been allocated to the hard-to-staff schools. The ETS Pathwise New Teacher Mentoring Program has been adopted.
- Two of the divisions have been targeted to participate in the Hard-to-Staff Teacher Incentive program. The program provides professional development; high-quality mentoring; and financial assistance to improve working conditions, performance bonuses, and recruitment and retention stipends for teachers meeting high teacher-effectiveness standards.
- Turnaround specialists have been deployed in high-needs schools in two Region VIII counties. An executive education and school leadership program is designed to develop a cadre of school administrators who are trained to turn around consistently low-performing schools by using principles of business and education management. Turnaround specialists receive intensive support throughout the school year, with the goal of increasing student achievement in a low-performing school within three years. Successful turnaround specialists meet targets agreed upon by the school division and the state and receive incentives. Benchmark data for these schools are reported to the Virginia Department of Education.

### What States Should Consider

States are faced with increasing pressures for performance and accountability in a context very different from those of when the nation's school system was designed and implemented. As discussed above, the student population has

changed as has the social context in which schools operate. To keep the promise of America's education system, states need to respond to today's challenges by strategically using data to inform their efforts and by investing their resources to achieve the greatest effect.

### Data

The importance of having a robust data system to guide a state's efforts cannot be overstated. The ability to gather reliable, accurate data is vital to informing the state of specific challenges and guiding efforts to address those challenges most appropriately and efficiently. To guide equitable teacher distribution, states must be able to gather, at a minimum, the following types of data:

- Teacher certification and education information.
- Course-level teaching assignments by school, connecting teachers to classes taught.
- Teacher attrition data to determine whether teachers move to another school or leave the profession and to track the characteristics of teachers who leave and their reasons for leaving.

To be prepared to meet likely future data needs, a state should also consider longitudinally tracking student performance data linked to specific teachers.

### Goals

Once a state's challenge areas are identified through reliable data, clear goal statements and benchmarks should be developed. The establishment of clear goal statements and appropriate benchmarks will also make obvious the most appropriate data elements to gather and track to best inform progress. For example, analysis of the data may reveal that high-poverty schools are largely staffed with teachers who are not highly qualified and that the primary cause is teacher attrition from specific schools. This finding should suggest that resources be appropriated to determine possible causes for the attrition in these schools. Once

likely causes are identified, initiatives can be targeted to address these root causes. Initiatives could include professional development for the school administrator, release time for teachers, the creation of stronger partnerships with higher education institutions, and the creation of collaborative communities of teachers within the school. These initiatives could be piloted, and data on attrition could be tracked over a reasonable period of time to determine whether the efforts are successful. This information could then be disseminated to policymakers in order to determine the most appropriate policies to enact to better support and make permanent positive changes.

### **Targeted Efforts and Allocation of Resources**

It is important for states to focus their efforts and initiatives on the specific problem areas identified. Many state equity plans listed numerous current efforts to address a broad range of perceived teacher supply needs. Although each of these efforts may seem logical in itself, the overall result can be disappointing. The diffusion of effort and lack of clarity about linking activities to goals often results in inadequate resources and efforts allocated to the specific areas most in need of help. States may achieve more powerful results by allocating a greater percentage of their resources to carefully identified challenge areas.

### **Identification of Partners and Stakeholders**

Several states are recognizing and marketing the fact that student success benefits all members of the community. They are establishing partnerships and other collaborative associations with members of the business community and with other education organizations. These partners may provide funding for certain endeavors and may also be able to provide other types of resources, technical assistance, convening, and marketing. Perhaps most important is the strong public and political advocacy that selected partners and stakeholders

can bring to the efforts of education in addressing the tough issues associated with the distribution of HQTs.

### **A Final Word on State Education Policy**

Quality state education policy serves two primary functions: (1) it establishes parameters of authority and activity (who is responsible for doing what), and (2) it sets priorities for efforts and resources. State policy should serve to empower, not hinder, the systems it governs. A state-level policy that is overly prescriptive may inadvertently obstruct the ability of other involved agencies and organizations to reach their goals or serve their populations. Alternately, by providing too little direction, a policy may not give a clear indication of priorities. State policy also needs to be dynamic to reflect advances in knowledge and changes in context and culture.

Districts and schools may have specific hurdles and opportunities affecting their ability to respond to the challenge of equitable teacher distribution. Policymakers need to consider this as they attempt to create the most effective policies to help districts, schools, and our whole education system keep America's promise of a high-quality education for all students, regardless of race or ethnicity, geographic location, disability, or economic status.

## References

- Goe, L. (2006). *Planning tool to provide evidence of progress toward equitable teacher distribution*. Washington, DC: National Comprehensive Center for Teacher Quality. Retrieved September 11, 2007, from <http://www.ncctq.org/TeacherDistributionPlanningTool2.pdf>
- Ingersoll, R. M. (2002). *Out-of-field teaching, educational inequality, and the organization of schools: An exploratory analysis* (Research Report No. R-02-1). Seattle, WA: Center for the Study of Teaching and Policy.
- Lankford, H., Loeb, S., & Wyckoff, J. (2001). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis, 24*(1), 37–62.
- National Center for Education Statistics. (2007a). *The condition of education 2007* (NCES 2007-064). Washington, DC: U.S. Department of Education. Retrieved September 11, 2007, from <http://nces.ed.gov/pubs2007/2007064.pdf>
- National Center for Education Statistics. (2007b). Percentage of 4th graders eligible for free or reduced-price lunch and percentage distribution of students in the school eligible for a free or reduced-price lunch, by race/ethnicity and school location: 2005 [Table]. *The condition of education 2007* (NCES 2007-064). Washington, DC: U.S. Department of Education. Retrieved September 11, 2007, from <http://nces.ed.gov/programs/coe/2007/section1/table.asp?tableID=440>
- National Center for Education Statistics. (2007c). White-black and white-Hispanic gaps in average reading and mathematics scores, by grade: Various years, 1990–2005 [Table 14-1]. From Indicator 14: Trends in the achievement gaps in reading and mathematics. In *The condition of education 2007* (NCES 2007-064). Retrieved September 11, 2007, from [http://nces.ed.gov/programs/coe/2007/pdf/14\\_2007.pdf](http://nces.ed.gov/programs/coe/2007/pdf/14_2007.pdf)
- No Child Left Behind Act of 2001, Pub. L. No. 107–110, 115 Stat. 1425. (2002). Retrieved September 11, 2007, from <http://www.ed.gov/policy/elsec/leg/esea02/index.html>
- Office of Postsecondary Education. (2006). *The secretary's fifth annual report on teacher quality: A highly qualified teacher in every classroom*. Washington, DC: U.S. Department of Education. Retrieved September 11, 2007, from <http://www.ed.gov/about/reports/annual/teachprep/2006-title2report.pdf>
- Office of the Governor of California. (2006). *Fact sheet: Increasing number of highly qualified teachers*. Retrieved September 11, 2007, from <http://gov.ca.gov/index.php/?fact-sheet/4374/>
- Peske, H. G., & Haycock, K. (2006). *Teaching inequality: How poor and minority students are shortchanged on teacher quality*. Washington, DC: The Education Trust.
- Prince, C. (2006). *Template for state teacher equity plan*. Washington, DC: Council of Chief State School Officers. Retrieved September 11, 2007, from <http://www.ccsso.org/content/PDFs/StateTeacherEquityTemplate.doc>
- Stroup, S. (2004, December). *Enactment of the "Taxpayer-Teacher Protection Act of 2004"* (Pub. L. 108–409; 118 Stat. 2299) [Letter]. Information for Financial Aid Professionals Online Library. Retrieved September 11, 2007, from <http://www.ifap.ed.gov/dpcletters/GEN0414.html>

## Quality Is the Best Policy

Visit the NCCTQ's NCLB Highly Qualified Teacher and Paraprofessional database ([www.ecs.org/html/educationissues/teachingquality/NCLB-HQTP/NCCTQ\\_db\\_intro.asp](http://www.ecs.org/html/educationissues/teachingquality/NCLB-HQTP/NCCTQ_db_intro.asp)).

There you will find the following:

- Highly Qualified Teacher (HQT) definitions
- High, Objective, Uniform State Standards of Evaluation (HOUSSE) options
- Title I paraprofessional requirements

NCCTQ partner, the Education Commission of the States (ECS), tracks changes that states make to teacher-quality definitions and policies and makes them available for your easy state-by-state reference. Users may search for information by selecting individual states on an interactive map; compare definitions, options, and reciprocity across states; or download preselected 50-state reports.

For example, the site's state comparisons report section allows a user to search for states that require Title I instructional paraprofessionals to be certified. The database allows users to instantly identify the 11 states that have paraprofessional certification requirements on the books:

- Delaware
- Georgia
- Iowa
- Maine
- Minnesota
- New Mexico
- New York
- North Dakota
- Ohio
- Texas
- West Virginia

Users may also quickly find information about the three states that have delineated reciprocal HOUSSE options:

- Florida
- North Carolina
- South Carolina

