

## What's New?

### Second Annual NCCTQ What Works Conference

The National Comprehensive Center for Teacher Quality (NCCTQ) hosted its second annual What Works Conference, “Advancing Student Achievement Through Effective Teaching and Leadership,” on November 5–7, 2007, at the Fairmont in Washington, D.C. Participants at the event included regional comprehensive centers, state education agencies, and other national organizations whose work focuses on educator quality research, policy, and practice. The conference addressed connections between teacher quality, leadership quality, and student outcomes with an emphasis on teaching and leading in at-risk schools and students with special needs.

The interrelationship between teacher quality and leadership provides a strong foundation for improving student achievement, especially when effective leadership is the linchpin of an effective education system—a system of aligned, coordinated, adaptive, and sustainable policies that work for all learners. The conference included several keynote speakers known for their influence in the areas of teacher quality; leadership; and emerging research, policy, and practice. A series of sessions also represented the array of educator quality topics that state and local educational agencies are grappling with as they work to implement the No Child Left Behind Act. Presentation materials and an executive summary of the conference are available on the [NCCTQ website](http://www.ncctq.org).

### New Online Resource: Special Education Discussion Forum



In early 2008, the NCCTQ Connection, a new area dedicated to special education, will be added to the NCCTQ website. One feature of this area is an online discussion forum that will be facilitated by Vanderbilt University. The discussion forum will be available in February 2008 and will focus on supporting teacher quality in special education. NCCTQ is interested in your input to ensure that the discussion board is relevant and useful for your work. Please contact Amy Potemski at [amy.potemski@learningpt.org](mailto:amy.potemski@learningpt.org) or 202-778-4589 for any questions or comments.

## Frequently Asked Questions From the Webcast

NCCTQ hosted a live, interactive webcast on October 11, 2007. The webcast focused on NCCTQ’s inaugural biennial report, *America’s Challenge: Effective Teachers for At-Risk Schools and Students*. The authors of the report summarized the most important findings and shared stories from the field—with a focus on teachers of students with special needs. New polling data about teachers in their first year of teaching, collected by the research firm Public Agenda, was also introduced. The following are postwebcast questions as answered by the webcast presenters.

The National Comprehensive Center for Teacher Quality is funded by the U.S. Department of Education and is a collaborative effort of Education Commission of the States, ETS, Learning Point Associates, and Vanderbilt University.

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## Questions Answered by Laura Goe, Ph.D., ETS and NCCTQ

### **How can we reconcile what the research says—that credentials do not seem to matter for student achievement outcomes except in mathematics yet these credentials are demanded for teachers to be considered highly qualified?**

The relationship between student achievement and teaching credentials has been studied in terms of what type of credentials teachers have, not whether they have a credential at all. For example, a number of studies have attempted to determine whether teachers working on emergency or temporary credentials are as effective as teachers who have clear credentials. Similarly, teachers who are teaching “out of field” have been compared with those who are certified to teach a subject such as mathematics or language arts.

These comparisons of credentialed versus noncredentialed teachers are really focused on how much training or what kinds of training teachers have had. All of them have met some minimum requirements before they are allowed to teach, even on an emergency credential. Before they enter the classroom, most states require teachers to have, at minimum, a four-year degree, a passing score on a basic teaching competency test, and a passing score on a subject test for secondary teachers. Most also require that teachers without clear credentials be enrolled in a regular or alternative certification program and demonstrate progress towards achieving full certification.

Thus, most teachers have a minimum level of qualifications. Research indicates that beyond that minimum, additional qualifications (such as master’s degrees or more coursework) may matter little in terms of producing growth in student achievement. Also, it is important to realize that these studies look at growth in achievement, not just levels of achievement. It would not be useful to examine levels of achievement because students are not randomly assigned to teachers and teachers are not randomly assigned to schools. The bottom line is that it is difficult to find teacher qualifications, characteristics, or practices that consistently predict student growth as measured by standardized test scores. This may be a problem with the way we are evaluating teacher qualifications, characteristics, or practices, but it may also be because standardized achievement tests were designed for a single purpose—to measure student achievement. They may simply not be sensitive to measure subtle differences in teachers’ qualifications.

### **The lack of evidence about the relationship of teacher knowledge and student achievement is counterintuitive. Do you think we need to be doing different kinds of studies to establish those links? If so, what kinds?**

It certainly is counterintuitive! The policies regarding the preparation and certification of teachers are based on the belief that teachers should have a certain level of college coursework in a subject and demonstrate subject-matter knowledge on a test in that subject. Unfortunately, there is little consistent evidence that teacher knowledge makes a difference in terms of student achievement gains, with the notable exception of mathematics. There is also some evidence—not as strong or consistent—that teachers’ knowledge of science helps predict student achievement in that subject, particularly at the secondary level. Other subjects, such as language arts and social studies, however, do not show strong, consistent evidence of a direct relationship between teacher knowledge and student achievement growth. But is it because teacher knowledge really doesn’t matter? Or is it because researchers have not yet figured out how to measure whether it matters? Perhaps different research approaches are needed.

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There are two possible approaches that seem promising. One is using a pre- and posttest design that may be better at capturing growth in students' learning about a specific subject than statewide standardized tests. Using this method would require that students be tested at the beginning of the year and again at the end of the year to determine their gains in the subject. These gain scores would then be tied to various measures of teacher knowledge, such as teachers' scores on subject matter tests, course-taking history, degrees, or classroom performance using a subject-specific observation protocol to evaluate teaching practices.

The second research design calls for intensive observation of teachers' performance in the classroom, using both subject-specific and general observation protocols, conducted by trained, calibrated observers. Teachers' scores would then be linked to student outcomes using either standardized test scores or some other measure of student growth in the particular subject. Although observation studies have been conducted before, it is likely that little correlation to student growth was found because researchers used teachers' scores from observations that had been collected for other purposes, conducted only once, or conducted by observers who were not adequately trained and calibrated. Thus, a study design that calls for systematic and repeated teacher performance evaluations done by well-trained observers might be able to detect differences in what teachers do and how those differences matter to student achievement.

## Questions Answered by Jonathan Rochkind, Public Agenda

**The majority of new teachers feel that they have had sufficient preparation for teaching and that their biggest challenges are the on-the-job realities of classroom management and student discipline. What can we do to better support these enthusiastic newcomers?**

Most new teachers do speak positively about much of their preparation for teaching, although it is important to point out that 45 percent believe there was too much emphasis on the history and philosophy of education during their training and not enough practical, hands-on experience. Many new teachers also cite the difficulty of teaching in ethnically diverse classrooms, and only 38 percent of the new teachers say their training in this area was very effective.

Once on the job, it is new teachers in high-needs schools who are more likely to experience a difficult, uneasy transition, and many voice a desire for more effective guidance from more experienced colleagues. About 3 in 10 new teachers in high-needs schools give their colleagues "fair" or "poor" ratings for providing guidance and support on handling difficult students (30 percent), working with parents (30 percent), and working with special-needs students (32 percent). While these opinions reflect a minority of new teachers, they represent those of a sizeable number of teachers—who together are responsible for the education of thousands of students nationwide and could use more support from their colleagues. Beyond this, 42 percent of new teachers in high-needs schools say they believe that as new teachers, they have been asked to take on classes with the most difficult-to-reach students. Taken together, these findings suggest that there is considerable room for improvement in the way new teachers in high-needs schools are supported and advised during their initial year. They suggest a need for more effective mentoring and coaching and a more robust and clearly thought-out orientation program specifically for new teachers working in high-needs situations.

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**In your survey of first-year teachers, did you break out the findings among the pathways teachers take to enter the profession (e.g., programs like Teach for America, undergraduate credentials, master’s programs)?**

Yes, the study included a subsample of new teachers who entered the profession through three nontraditional programs (Teach for America, Troops to Teachers, and the New Teacher Project), and we were able to compare their responses to first-year teachers who completed a traditional training program. This analysis was not included in the webcast presentation. Instead, a separate report on this aspect of the research titled [Lessons Learned: New Teachers Talk About Their Jobs, Challenges, and Long-Range Plans](#) has been issued. Some of the respondents in the random sample of the traditionally trained teachers did receive a master’s degree in teaching, but there are not sufficient numbers to be able to report their views with confidence.

Our analysis of the views of first-year teachers from the three alternate programs suggests that new teachers are typically highly idealistic and more likely to say that they decided to teach as a way to help students from low-income families. Most of these teachers are working in high-needs schools, so we compared their views to the views of traditionally trained teachers also working in high-needs schools. Using this approach, we found that teachers who came to teaching through these three alternate-route programs are more likely to give fair or poor ratings to their administrators for providing strong instructional leadership and supporting them on discipline issues and to their colleagues and mentors for giving them strong support and good advice. They are also less likely to say that their cooperating teachers were good role models and to give them high marks for providing good advice and guidance in important areas. To review this data and see other differences between the teachers from these three programs and traditionally trained teachers in high-needs schools, please refer to [Lessons Learned: New Teachers Talk About Their Jobs, Challenges, and Long-Range Plans](#).

**Questions Answered by Dan Reschly, Ph.D., and Susan Smartt, Ph.D., Vanderbilt University and NCCTQ**

**In your analyses of teacher preparation programs, did you look at all types of classes (e.g., general education [curriculum and strategies], special education, and reading courses)? In our program, for example, reading is taught in reading courses, not necessarily in general and special education courses, which focus on different content.**

In the NCCTQ biennial report, *America’s Challenge: Effective Teachers for At-Risk Schools and Students*, and in the policy brief, *Barriers to the Preparation of Highly Qualified Teachers in Reading* (Smartt & Reschly, 2007), we mention two groups of teacher preparation programs that have been analyzed recently. First, the 2006 study conducted by Walsh, Glaser, and Wilcox of the National Council on Teacher Quality examined artifacts from general education reading courses. In a later study, Reschly, Holdheide, Smartt, and Oliver (2007) evaluated special education teacher preparation courses related to reading instruction. Both studies reflect similar findings, suggesting institutions of higher education (IHEs) need to do a better job of preparing preservice teachers to teach reading.

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## Has NCCTQ come across research related to preparing teachers to work with English language learners (ELLs)? Are IHEs addressing this need?

The emphasis and degree of focus on how well preservice teachers are prepared to teach ELLs varies state by state. As would be expected, both Florida and Texas have explicit requirements for preservice teachers to take courses that will prepare new teachers to meet the needs of ELLs in their classrooms. [The University of California Linguistic Minority Research Institute \(UC LMRI\)](#) has published some informative pieces on ELLs and teacher preparation. For example, in the Summer 2007 newsletter, there is an article titled “Identifying Critical Competencies for Teachers of English Learners,” which provides an overview on what teachers need to know, as well as resources for further reading.

### References

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- Smartt, S. M., & Reschly, D. J. (2007). *Barriers to the preparation of highly qualified teachers in reading*. Washington, DC: NCCTQ. Retrieved December 12, 2007, from <http://www.ncctq.org/publications/June2007Brief.pdf>
- Walsh, K., Glaser, D., & Wilcox, D. D. (2006). *What education schools aren't teaching about reading and what elementary teachers aren't learning*. Washington, DC: National Council on Teacher Quality.

## Questions Answered by Tricia Coulter, Ph.D., Education Commission of the States (ECS) and NCCTQ

### Could you elaborate on the type of data that states need to track in their “quality data systems”?

Examples of such data types are provided in Chapter 4 of the biennial report, *America's Challenge: Effective Teachers for At-Risk Schools and Students*, and include the following:

- Teacher information including certification, education level, experience, and completion of specific coursework. These data are intended to assist in determining whether certain factors are more frequently related to teacher effectiveness, which can only be determined after the date of hire. If strong correlations can be established between teacher effectiveness in a specific school setting and measurable characteristics of effective teachers, this information can be used to inform hiring practices and policies.
- Course-level teaching assignments by school, connecting teachers to classes taught. These data will assist in determining the specific courses for which districts are having trouble finding highly qualified teachers.
- School-level data on teacher turnover rate to help target schools that may need assistance in leadership or culture change.
- Teacher attrition data to determine whether teachers move to another school or leave the profession. These data will help target intervention efforts by determining the causes of teacher attrition that can be effected through policy or practice (e.g., working conditions).

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In addition, these data should be longitudinal. Cross-sectional data do not supply policymakers with the information they need. The knowledge that the state does not have enough teachers at any given time 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.

**Does NCCTQ consider effective professional learning (collaborative and occurring multiple times per week) as part of “work conditions”? Have you thought about measuring this type of intervention on teacher retention?**

Yes, working conditions include all aspects of a school and classroom environment and the policies and practices governing teachers’ time and school culture. Currently, NCCTQ is creating a 50-state database on teacher professional development policies. We expect to release this database in spring 2008.

## Stories From the Field

### Delaware Reaches Out to Teachers and Principals on Equitable Distribution

In collaboration with the Mid-Atlantic Comprehensive Center and the REL Mid-Atlantic, NCCTQ began work with the state of Delaware to develop a series of data collection tools to better understand the conditions and practices that contribute to the distribution of highly qualified and experienced teachers. The impetus behind this work came from the [Delaware State Plan to Ensure All Students are Taught by Experienced Highly Qualified Teachers](#).

NCCTQ is assisting in the design and validation of a survey to be administered to teachers in a purposeful sample of schools that will explore the factors that may lead to the equitable distribution of teachers. NCCTQ is also developing two interview protocols to be administered to principals and school district officials that will further probe teacher hiring and assignment processes, as well as student assignment process. The results of this data collection effort will be valuable information that the Delaware Department of Education can use to successfully implement their state plan, as well as inform future policy decisions.

The interorganizational team members will work together to conduct the study and prepare a final report. NCCTQ is planning to offer technical assistance and the use of the data collection instruments to other interested regional comprehensive centers and states that also want to study staffing patterns and teacher mobility. A workshop on these tools will be offered at NCCTQ’s upcoming Issue Forum. For additional information, please contact [Amy Jackson](#) of NCCTQ.

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## Teacher Quality Questions From the Field

Each month, NCCTQ responds to questions and requests for information from the field. The following question is a recent request for information (chosen for its general applicability), and the response is provided by NCCTQ.

- How do you determine when the number of highly qualified teachers from one low-income campus to another is significant enough to constitute inequity, based on the poverty level of the campuses?

**How do you determine when the number of highly qualified teachers from one low-income campus to another is significant enough to constitute inequity, based on the poverty level of the campuses? For example, if one campus has a 60 percent poverty level and another has a 50 percent poverty level, is that 10 percent difference enough that you must worry about the differences in the numbers of highly qualified teachers? Or would they be considered to be in the same category of poverty? If the difference in poverty level is 25 percent, does that place the two schools in different categories? At what percentage of difference would you be concerned about the difference in distribution of teachers?**

Research does not exist to clarify the issue of what constitutes a poverty level that should trigger targeted assistance in getting more highly qualified teachers into the school. The decision to identify a school as “high poverty” for equitable distribution purposes is being left up to the states and LEAs with which they work. That said, several NCCTQ staff members weighed in on this issue and developed a consensus view on how this should be sorted out.

First, it is important to note that the equitable distribution requirements demand equity in distribution not only of highly qualified but experienced teachers as well. Thus, states should really be taking into account the percentage of new teachers in a school.

In addition, we recommend that additional variables be taken into consideration besides percentage of poverty level. In most states, it is possible to find school-level data that will allow you to determine the percentage of new teachers in a school, teacher turnover rate, percentage of minority students, percentage of ELLs, and aggregate student academic achievement (TEKS and TAKS). With this information, a state can create a “formula” for determining which schools are most in need of experienced, highly qualified, effective teachers. There are certainly high-poverty schools that are more successful than others, so this additional information would help “rank” schools for assistance. Instead of establishing a definition based solely on the percentage of low-income students at a school, it is useful to consider teacher qualifications (e.g., experience) and student characteristics in a school in defining the “high-needs” schools.

We suggest using the percentage of new teachers, teacher turnover, and minority students as part of the decision-making process because there is a research base showing them to be correlated with student achievement. The ultimate goal of equitable distribution is to raise student achievement through ensuring that the students who are most in need of good teachers get them, so including these variables, along with student achievement data, makes it more likely that you are accurately identifying the schools with the greatest percentage of students in need. Tennessee also considers teacher education, as seen in the policy brief on

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equitable distribution, [Tennessee’s Most Effective Teachers: Are They Assigned to the Schools That Need Them Most?](#). There is little evidence for a correlation between degree attained and student achievement, however. Tennessee found, as have others, that teachers’ impact on student achievement improves up to about five years in the classroom. After that, teachers may improve only incrementally—not enough to impact student achievement. Tennessee analyzed teacher effectiveness and found that teachers in their third through fifth years were likely to be more effective than teachers in their first and second years. Thus, taking into account the percentage of first- and second-year teachers in a school may be highly useful for ranking schools in terms of high needs.

States may want to consider at least some of these additional variables, as creating a formula to include all of them may be more than states are willing to do. Of course, it means more work, work that is not really “required” under the equitable distribution instructions; however, it would likely yield the most equitable results in terms of ranking which schools should be prioritized for incentives and other targeted assistance. Texas indicated in its state HQT plan that it disaggregates data by “high-poverty” and “high-minority” schools, so perhaps starting with those two definitions and then adding in median (not mean) teacher experience or the percentage of first- and second-year teachers would be the least difficult way to rank schools according to needs.

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